00108780

BOMBAY BRANCH

OF THE

Royal Asiatic Society.

Digitized with financial assistance from the
Government of Maharashtra
on 26 June, 2018

00108780

THE REPORT

OF THE

PRESIDENT

OF

QUEEN'S COLLEGE, GALWAY,

FOR

108780

THE ACADEMIC YEAR 1863-64.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

1865.

CONTENTS.

Page

REPORT, ... 3

TABLE I.—Numbers and Religious Persuasions of Students who have entered the Queen's College, Galway, in each year from its opening, . . 3

TABLE II.—Numbers and Religious Persuasions of Students attending Lectures in the College, in each Session from its opening, ... 4

TABLE III.—Number of Students attending the Lectures of each Professor, in each year since the opening of the College, ... 4

TABLE IV.—Number of Lectures delivered by each Professor in each Session since the opening of the College, ... 5

APPENDIX:

APPENDIX 1:

Days and Hours of Matriculation and Scholarship Examinations, to be held in October, 1864, ... 9

General Regulations of the College; Lists of Officers; Courses for Matriculation and Scholarship; Exhibitions, &c., ... 10

APPENDIX 2:

Scholarship Examinations, 1864, ... 49

Sessional Examinations, 1864, ... 83

THE REPORT

OF THE

PRESIDENT OF QUEEN'S COLLEGE, GALWAY,

FOR

THE ACADEMIC YEAR 1863-64.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY.

In announcing in the report which I had the honour of laying before your Majesty for the Session 1862-63 a continued increase in the number of our students, I alluded to the extraordinary emigration from this province, which was rapidly depopulating the town of Galway, and to the depressed condition of this province, and expressed a fear that the number of our students would diminish under a state of things so discouraging and so seriously obstructive to the progress of the provincial college. I am happy to state that the numbers entering the college and attending its lectures have suffered no diminution, but that, on the contrary, a slight increase has taken place in both.

In the accompanying tables (Nos. I. and II.) will be found the numbers who have entered the college and attended its lectures in each session.

I.—NUMBERS and RELIGIOUS PERSUASIONS of STUDENTS who have entered the Queen's College, Galway, in each year from its opening.

Session.	Matriculated Students.	Non-Matriculated Students.	Total.	Members of Established Church.	Roman Catholics.	Presbyterians.	Wesleyan Methodists.	Independents.	Various.	Total.
1849-50,	64	4	68	24	38	6	–	–	–	68
1850-51,	23	3	26	10	9	7	–	–	–	26
1851-52,	31	5	36	13	21	2	–	–	–	36
1852-53,	21	2	23	8	12	3	–	–	–	23
1853-54,	25	5	30	12	15	3	–	–	–	30
1854-55,	26	15	41	18	18	3	2	–	–	41
1855-56,	32	7	39	14	15	8	1	1	–	39
1856-57,	35	8	43	15	22	3	1	1	1	43
1857-58,	36	7	43	16	17	9	–	1	–	43
1858-59,	44	4	48	20	19	7	2	–	–	48
1859-60,	35	5	40	12	25	1	–	1	1	40
1860-61,	*59	1	60	13	33	12	2	–	–	60
1861-62,	†59	3	62	21	35	6	–	–	–	62
1862-63,	60	4	64	18	27	16	1	–	2	64
1863-64,	54	5	59	20	21	11	2	4	1	59
1864-65,	58	12	70	26	28	13	–	2	1	70
Total,	662	90	752	260	355	110	11	10	6	752

* Including three who had previously been in attendance as non-matriculated students.
† Including one who had previously been in attendance as a non-matriculated student.

II.—Numbers and Religious Persuasions of Students attending Lectures in the Queen's College, Galway, in each Session from its opening.

Session.	Matriculated Students.	Non-Matriculated Students.	Total.	Members of Established Church.	Roman Catholics.	Presbyterians.	Wesleyan Methodists.	Independents.	Various.	Total.
1849-50,	64	4	68	24	38	6	–	–	–	68
1850-51,	60	3	63	22	28	13	–	–	–	63
1851-52,	68	5	73	25	41	7	–	–	–	73
1852-53,	73	2	75	26	40	9	–	–	–	75
1853-54,	76	5	81	30	42	9	–	–	–	81
1854-55,	69	16	85	32	46	5	2	–	–	85
1855-56,	78	9	87	26	42	14	3	2	–	87
1856-57,	88	8	96	30	49	10	3	3	1	96
1857-58,	92	8	100	31	47	16	3	2	1	100
1858-59,	113	9	122	37	64	15	4	1	1	122
1859-60,	111	7	118	31	69	11	2	2	3	118
1860-61,	141	3	144	33	85	19	3	2	2	144
1861-62,	148	5	153	39	91	19	3	1	–	153
1862-63,	161	4	165	33	95	32	2	–	3	165
1863-64,	160	5	165	41	91	25	3	4	1	165
1864-65,	157	12	169	50	78	31	2	6	2	169
Total,	1,659	105	1,764	510	946	241	30	23	14	1,756

In tables (Nos. III. and IV.) appear the number of students attending the several classes, and the number of lectures given by each Professor in each session.

III.—Return showing the Number of Students attending the Lectures of each Professor, in each year since the opening of the College.

	1849-50.	1850-1.	1851-2.	1852-3.	1853-4.	1854-5.	1855-6.	1856-7.	1857-8.	1858-9.	1859-60.	1860-1.	1861-2.	1862-3.	1863-4.
Greek,	50	31	24	19	24	21	21	23	21	23	24	24	36	36	35
Latin,	50	27	24	22	21	19	20	23	21	22	23	24	29	35	36
Mathematics,	54	38	28	28	27	28	25	34	34	42	35	42	48	52	41
English, &c.,	47	43	28	23	23	22	22	27	20	31	22	29	24	38	39
Modern Languages,	54	23	23	19	25	37	29	34	30	38	52	70	77	76	71
Celtic Languages,	–	3	2	2	–	–	–	–	3	–	3	6	–	–	–
Natural Philosophy,	8	11	23	19	27	23	21	27	29	38	33	70	57	67	62
Natural History,	3	26	25	21	32	25	30	30	32	37	37	39	32	33	29
Logic and Metaphysics,	–	20	17	14	14	14	13	14	15	16	17	19	21	23	25
Chemistry,	13	25	36	29	27	23	29	40	40	49	53	60	57	46	52
Mineralogy and Geology,	–	4	14	15	10	14	10	8	15	16	17	–	6	10	5
Engineering,	2	10	11	13	10	11	9	10	15	18	12	21	18	21	17
Agriculture,	4	5	5	5	6	6	7	11	14	7	7	5	3	5	2
Anatomy and Physiology,	10	9	8	15	18	13	22	35	39	47	52	71	68	65	56
Materia Medica and Medical Jurisprudence,	–	5	9	11	10	7	8	17	13	24	20	26	34	28	32
Surgery,	–	–	6	12	7	7	6	13	13	18	20	19	33	27	26
Midwifery,	–	–	4	7	4	–	4	3	11	5	11	12	14	17	12
English Law,	4	4	5	6	6	7	5	4	3	7	7	4	7	7	7
Jurisprudence and Political Economy,	4	4	12	13	16	10	9	9	7	17	13	10	5	9	8
Medicine,	–	–	–	4	4	2	6	6	7	7	6	8	16	21	26

IV.—RETURN of the NUMBER of LECTURES delivered by each Professor in each Session since the opening of the College.

	1849–50.	1850-1.	1851-2.	1852-3.	1853-4.	1854-5.	1855-6.	1856-7.	1857-8.	1858-9.	1859–60.	1860-1.	1861-2.	1862-3.	1863-4.
Greek,	265	254	216	224	248	249	217	262	223	246	210	229	*315	290	255
Latin,	270	252	212	238	233	190	217	244	195	189	189	196	181	263	228
Mathematics,	221	255	230	167	164	211	181	†186	†234	†233	†209	†210	†213	†199	†199
English, &c.,	37	28	77	97	126	128	127	107	100	92	97	76	16	160	147
Modern Languages,	212	249	207	175	155	160	155	†162	†154	†151	†169	†246	†244	†229	†284
Celtic Languages,	–	90	65	30	–	–	–	‡3	43	–	30	24	–	–	–
Natural Philosophy,	63	154	120	207	139	175	225	174	173	192	172	213	196	211	203
Natural History,	–	120	85	92	85	76	68	68	87	77	76	56	57	62	70
Logic and Metaphysics,	–	40	114	159	123	141	138	162	106	109	170	165	132	182	146
Chemistry,	32	111	128	140	113	123	97	101	107	98	100	95	91	95	89
Mineralogy and Geology,	–	51	45	57	51	50	45	49	60	64	64	§–	61	49	66
Engineering,	9	118	105	97	80	76	112	111	122	126	81	162	183	241	211
Agriculture,	–	106	112	160	144	160	192	174	123	154	182	83	65	54	28
Anatomy and Physiology,	111	112	111	108	100	115	104	103	102	104	‖116	‖96	‖90	‖84	‖105
Materia Medica and Medical Jurisprudence,	–	51	60	90	95	93	95	96	90	90	77	85	78	88	88
Surgery,	–	–	61	62	62	61	62	60	53	59	60	55	60	60	50
Midwifery,	–	–	59	70	62	–	62	61	60	59	54	51	60	51	54
Medicine,	–	–	–	64	62	61	62	60	60	58	62	55	49	50	50
English Law,	18	45	55	97	71	72	72	40	35	48	49	72	68	64	68
Jurisprudence and Political Economy,	20	48	60	96	106	95	60	52	51	97	49	61	60	67	83

Nothing perhaps can more clearly exhibit the peculiar difficulties with which this college has to contend, and the determination evinced by the people of the province to support it, than a comparison of the number of the population of the town of Galway with the number of students attending the college lectures at different periods since the opening of the college. It is needless to observe how much the wealth and population of the town and neighbourhood in which a college is situated must influence its growth and progress. In this respect the situation of the Galway College has been always peculiarly unfortunate as compared with that of almost any other similar institution in the empire, while the statistics of the last few years unfold a state of things which would appear to render any progress almost impossible. In the year 1851 the population of the town of Galway amounted to 23,787. In the same year the entrances into the college were 23, the number attending lectures, 63. In 1861 the population of the town had diminished to 16,786, while the college entrances had risen in that year to 60, and the number attending lectures to 144. Since that time the emigration, always increasing, has continued to thin the population of the town, which can hardly now exceed from 12,000 to 13,000 persons, and the number entering the college in the present year is 70, the number at-

* Exclusive of 72 lectures to extra classes.

† Exclusive of a Course of Lectures given by the Senior Scholar.

‡ These Lectures were open to the public.

§ Owing to an alteration in the Ordinances of the University, no Lectures on Mineralogy and Geology were delivered this Session.

‖ Exclusive of Anatomical Demonstrations.

tending lectures, 169. Thus, while the population of the town of Galway has, since the year 1851, diminished almost to one-half, the number entering the college has trebled, and the number attending lectures has increased almost in the same proportion. Had the town of Galway continued to maintain even the position which it held at the opening of the college, still more had it obtained that expansion and prosperity which many fortunate circumstances seemed to promise, and had the province been visited by better times, it is not too much to say that the number of our students would exceed by at least one-half what they are at present.

In my last report I was able to announce the success of one of our students in obtaining the high distinction of a studentship at the Inns of Court, in London; an honor open to general competition. I am now enabled to announce the success of another student in gaining a similar distinction lately instituted by the Benchers of the King's Inns, Dublin.

At the first examination for the Indian Civil Service in 1864, a student of this college obtained, on superior answering, an appointment, making the fifth which has been won in that service by our students in the last three years.

A Ceylon writership, an appointment in the Indian Engineering Department, and several minor appointments have been also carried off in the last year by our students at competitive examinations.

These successes are a sufficient earnest of what the students from this province could achieve did they possess, previous to their entering the college, those advantages of sound classical education which are enjoyed by so many of those with whom they have to contend for the high and profitable honors now open to the competition of the empire, but from which they are almost entirely excluded by the want of intermediate schools—a want to which I have so often alluded in these reports, and to which I have so often implored the attention of the Government.

The want of intermediate classical schools even in the prosperous province of Ulster, is evinced by the numerous deputations from that province, which, so repeatedly bring the matter before the Irish Government and call for its interposition to afford a remedy. The want of such schools and the injurious effect which such a want must exercise on the progress of the Belfast College has never been questioned. But the barrenness of Ulster in this respect is fertility when compared with the condition of this province. In 1851 the pupils attending the classical schools in the town of Belfast numbered 799, while those attending similar schools in the entire province of Connaught amounted to but 690. Since that time the wealth and population of Belfast have increased at an almost unprecedented rate, and it is reasonable to suppose that the number of pupils attending its classical schools has kept pace with the increase of the population. That increase has been from 100,301 in 1851, to about 140,000 at the present day. During the same period the decay of Galway has been such as I have above described. It is more than probable that the

classical schools of Belfast now contain double the number of pupils attending the classical schools of the province of Connaught. Surely such a state of things merits the attention of a Government to whom the progress of this college, to which it presents so formidable an obstacle, and the welfare of this province, with which it so seriously interferes, must be matters of deep interest.

EDWARD BERWICK,

President.

QUEEN'S COLLEGE,
May, 1865.

APPENDIX.

APPENDIX, No. 1.

QUEEN'S COLLEGE, GALWAY.

1865-6.

DAYS AND HOURS OF MATRICULATION AND SCHOLARSHIP EXAMINATIONS. OCTOBER, 1865.

DAYS...	HOURS.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.
Tuesday, 17th Oct.	9—5		Supplementary Examinations.	Supplementary Examinations.
Wednesday, 18th Oct.	9—5		Supplementary Examinations.	Supplementary Examinations.
Thursday, 19th Oct.	9–12		Lit. Schol.—Latin. Med. / Engin. } Schol.—Chem.	
	2—5		Lit. Schol.—Greek. Med. / Engin. } Schol.—Chem.	
Friday, 20th Oct.	9–12	Matriculation.	Lit. Schol.—English. Eng. Schol.—Geom. Draw., &c.	
	2—5*	Matriculation.	Lit. Schol.—English. Eng. Schol.—Geom. Draw., &c.	
Saturday, 21st Oct.	9–12		Lit. Schol.—Latin. Med. Schol.—Nat. Hist.	—
	2—5		Lit. Schol.—Greek. Med. Schol.—Nat. Hist.	
Monday, 23rd Oct.	9–12	Lit. / Med. } Schol.—English. Lic. in Arts Ex.	Med. / Lit. } Schol.—Mod. Lang.	Med. Schol.—Mat. Med.
	2—5	Lit. / Med. } Schol.—Greek.		Med. Schol.—Mat. Med.
Tuesday, 24th Oct.	9–12	Lit. / Med. } Schol.—Latin.	Med. Schol.—Anat.	Med. Schol.—Anat. Engin. Schol.—Min. & Geol.
	2—5	Lit. / Med. } Schol.—Greek.	Med. Schol.—Anat.	Med. Schol.—Anat.
Wednesday, 25th Oct.	9–12	Lit. / Med. } Schol.—Latin.	Med. Schol.—Nat. Phil.	Engin. Schol.—Nat. Phil.
	2—5	Science / Med. / Engin. } Schol.—Math. Lic. in Arts Ex.	Science / Engin. } Schol.—Math.	Engin. Schol.—Nat. Phil.
Thursday, 26th Oct.	9–12	Science / Med. / Engin. } Schol.—Math.	Science / Engin. } Schol. Math.	Engin. Schol.—Engin.
	2—5			Engin. Schol.—Engin.

*The Examination for the Fourth Year Scholarships in MEDICINE will commence on Monday the 23rd October. Arrangements will also be made for holding the Examinations for Law Scholarships early in December.

Appendix, No. 1.

QUEEN'S COLLEGE, GALWAY.—Founded December 30, 1845.

This College is a Corporation, founded by Letters Patent under the Great Seal of Ireland, under the name and style of the "President and Professors of Queen's College, Galway."

The general government and administration of the College under the Statutes, and in cases not provided for by the Statutes, is vested in a Council consisting of the President, and six Professors elected by the Corporate Body.

Visitors.

His Grace the Lord Primate.
His Grace the Duke of Leinster.
The Right Honourable the Earl of Fingall, K.P.
The Right Honourable the Chief Secretary for Ireland.
The Right Honourable Lord Chancellor Brady.
The Right Reverend the Lord Bishop of Tuam.
The Most Reverend Archbishop M'Hale.
The Moderator of the General Assembly.
The President of the College of Physicians.
The President of the Royal College of Surgeons.

President.

Edward Berwick, B.A.

Council.—1864-65.

The President.
Richard B. Bagley, M.A.
George J. Allman, LL.D.
Thomas W. Moffett, LL.D.
Augustus Bensbach, M.D.
James V. Browne, M.D.
Richard Doherty, M.D.

Professors.

Greek,	Darcy W. Thompson, M.A.
Latin,	Richard Blair Bagley, M.A.
Mathematics,	George Johnston Allman, LL.D.
Natural Philosophy,	Arthur H. Curtis, LL.D.
History, English Literature, and Mental Science,	Thomas W. Moffett, LL.D.
Chemistry,	Thomas H. Rowney, PH.D.
Natural History,	Alexander G. Melville, M.D. Edin., M.R.C.S. Eng.
Mineralogy and Geology,	Wm. King, Cor. Mem. Nat. Hist. and Med. Soc. Dresden, &c.
Modern Languages,	Augustus Bensbach, M.D.
Jurisprud. and Polit. Econ.	John E. Cairnes, M.A.
English Law,	William B. Campion, B.A.
Anatomy and Physiology,	John Cleland, M.D.
Practice of Medicine,	Nicholas Colahan, M.D., F.R.S., Edin.
Practice of Surgery,	James V. Browne, M.D., L.R.C.S.I.
Materia Medica,	Simon M'Coy, F.R.C.S.I.
Midwifery,	Richard Doherty, M.D., Hon. V.P., Obstet. Soc. Dub.
Medical Jurisprudence,	
Civil Engineering,	Edward Townsend, M.A.
Agriculture,	Thomas Skilling.

Office-Bearers.

William Lupton, M.A.,	Registrar.
George J. Allman, LL.D.,	Bursar.
John H. Richardson, B.A.,	Librarian.

DEANS OF RESIDENCE.

United Church of England and Ireland, ...	Rev. J. Treanor, B.A.
General Assembly of the Presbyterian Church in Ireland,	Rev. William Adair.
Wesleyan Methodist Church, ...	Rev. John Duncan.
Independent Church, ...	Rev. John Lewis.

THE COLLEGE SESSION.

The College Session is divided into three Terms.

The First Term of the Session 1864–5 commences on Tuesday, October 18, and ends on Monday, December 22, 1864.

The Second Term commences on Tuesday, January 6, and ends on Saturday, April 8, 1865.

The Third Term commences on Monday, April 24, and ends on Saturday, June 10, 1865.

The First Term of the Session 1865–6 commences on Tuesday, October 17, and ends on December 21, 1865.

The Second Term commences on January 5, and ends on Saturday, March 24, 1866.

STUDENTS.

Students are either Matriculated or Non-Matriculated.

Matriculated Students are required to pass an entrance or Matriculation Examination, and to pursue fixed courses of study.*

Non-Matriculated are permitted to attend the Lectures of any of the Professors, without being required to pass the Matriculation or any other Examination.*

MATRICULATION.

Candidates for Degrees or Diplomas in the Queen's University, or for Scholarships, Exhibitions, or Prizes, in Queen's College, Galway, are required to pass a Matriculation Examination.

Students are admitted by examination to Matriculation in the Faculties of Arts, Law, and Medicine, and in the School of Engineering. In each Faculty and School special courses are prescribed for examination.†

The Matriculation Examination is held at the commencement of the first Term of each Session; but additional Matriculation Examinations are held before the close of the Term.

The last Matriculation Examination for Students in the Faculty of Medicine is held on the 16th of November.

Candidates for Matriculation are required to appear in the Registrar's office before the Matriculation Examination for the purpose of entering their names on the College books.

Each candidate, before being admitted to the Matriculation Examination, is required to pay to the Bursar the Matriculation and College fee of ten shillings. This fee will be returned to such students as may fail to pass the Examination.

ATTENDANCE ON LECTURES.

Attendance upon Lectures is strictly prescribed to all Matriculated Students.

All Students shall pay the College Fee, and a moiety of their Class Fees, to the Bursar, and enter their names with the Registrar, before they are admitted to the classes of the several Professors.

* For further particulars of the status and privileges of Non-Matriculated Students, *vide* p. 13.

† *Vide* pp. 16, 24, 26, 34.

Appendix, No. 1.

The Registrar shall furnish to the Professors, before the commencement of Lectures in each Term, the rolls of their several classes, and from time to time such names as shall be afterwards entered with him.

No Student shall have his name replaced on the rolls of the Professors at the commencement of the second Term who has not paid the second moiety of his Class Fees.

Attendance on Lectures includes preparation for Lectures; and it is competent for a Professor who, on any occasion, is not satisfied with the preparation of a Student, to refuse him credit for attendance.

No Student shall be regarded as having kept a Course of Lectures who has not attended at least two-thirds of the entire number of Lectures delivered.

Attendance upon Courses of Lectures in the Faculty of Arts is recognised in cases where Students pass to a different Faculty or School.

In case of absence arising from illness or other unavoidable cause, the Student is required to lodge with the Registrar, immediately on recommencing his attendance, a letter or certificate explaining his absence, to be laid before the Council.

Examinations.

A General Sessional Examination is held at the close of each Session in the subjects upon which Lectures have been delivered during the Session. There is also a Supplementary Examination on the same subjects at the commencement of the following Session.

Every Matriculated Student in the Faculties of Arts and Law, and in the Schools of Engineering and Agriculture, must pass either the General Examination or the Supplementary Examination before his name can be entered on the College Register as having completed the Session; and no Student in these Faculties and Schools can be permitted to enter upon the Course of the succeeding year until he has so completed the previous Session.

No Student is admitted to the Sessional or the Supplementary Examination who has not kept the Courses of Lectures prescribed to Students of his class and standing.*

Scholarships.

Forty-six Junior and eight Senior Scholarships have been founded in the College.

Of the Junior Scholarships†—

Thirty, of the value of £24 each, are appropriated to Students pursuing the Course prescribed for the Degree of B.A.

Three, of the value of £20 each, to Students pursuing the Course for the Diploma of Elementary Law and the Degree of LL.B.

Eight, of the value of £25 each, to Students pursuing the Course for the Degree of M.D.

Five, of the value of £20 each, to Students pursuing the Course for the Diploma of Civil Engineering.

The Examinations for Junior Scholarships are held at the commencement of the First Term of the Session.

No Student is allowed to become a Candidate for a Junior Scholarship until he has paid the College Fee and one-half of the Class Fees for the current Session.

* For University Examinations, see the "University Regulations."

† For the distribution of these Scholarships, the subjects of Examination, and the conditions upon which they are held, *vide* pp. 18, 24, 31, 36.

No Student is permitted to present himself as a Candidate for a Senior Scholarship who has not entered his name with the Registrar, and paid the College Fee to the Bursar. *Appendix, No. 1.*

Junior Scholars are exempted from the payment of one moiety of the Class Fees for the courses prescribed to Students of their faculty and standing.

No Student can hold the same Scholarship a second time.

No Scholarship will in any case be awarded, unless the Candidates are, in the opinion of the Examiners, sufficiently qualified in the prescribed courses.

Exhibitions.

The College is empowered to award Exhibitions, varying in value from £10 to £18, at the same Examinations as the Scholarships, and to be held upon the same terms.

Exhibitioners are required to pay the whole amount of the Class Fees for the Session.

No Student is allowed to compete for a Junior Scholarship or Exhibition in any course substantially the same as that in which he has already held a Scholarship or Exhibition.

No Student who has been awarded an Exhibition or Prize for answering in any of the courses for Senior Scholarships can a second time obtain an Exhibition or Prize for answering in the same course; but such Exhibitioners and Prizemen are not precluded from competing for Senior Scholarships.

Prizes.

The College is empowered to award Prizes, by examination, at the close of the Session, to the most distinguished answerers in the several courses of study pursued during the Session.

Two prizes for English prose composition, and two prizes for Geometry, have been founded in the College, to be awarded annually at entrance:—first prize for English prose composition, £3 worth of books; second do., £2 worth of books: first prize for Geometry, £3 worth of books; second do., £2 worth of books.

All Candidates for Scholarships, Exhibitions, or Prizes, must have passed the Matriculation Examination in the Faculty or School to which the Scholarships, Exhibitions, or Prizes are attached.

Non-Matriculated Students.

Non-Matriculated Students are those who are permitted to attend the Lectures of any of the Professors without being required to pass the Matriculation or any other examination. They are required to pay to the Bursar the regulated Fees for the Classes proposed to be attended, and to sign an engagement to observe order and discipline in the College. They are not entitled to compete for Scholarships or other Collegiate distinctions.

During the term of their attendance on College Lectures they are admitted to read in the Library; and, on payment of a deposit of £1, are permitted to take out two volumes on loan, under the same regulations as Matriculated Students.

Every Non-Matriculated Student must pay to the Bursar one-half of his Class Fees before his name can be entered on the rolls of the several Classes, and the remainder at the commencement of the second Term.

Appendix, No. 1.

STUDENTS OF OTHER UNIVERSITIES.

Any Student who shall have pursued part of his Collegiate Studies in any one of the Queen's Colleges, or in any University capable of granting Degrees in the several Faculties of Arts, Law, and Medicine, and any Legal or Medical Student who shall have pursued part of his Legal or Medical Studies under teachers recognised by the Senate of the Queen's University, on passing such Examinations, and fulfilling such other conditions as the Council shall prescribe, may take corresponding rank in this College; and also may compete for Scholarships or other Prizes of the corresponding year, provided he shall not hold at the same time a Scholarship or other office of emolument in any other University, College, or Medical School.

FEES.

The College Fees payable by Matriculated Students are 10*s.* at the commencement of the first year, and 5*s.* at the commencement of each subsequent year.

The Fees payable by Students, whether Matriculated or Non-Matriculated, to the several Professors for attendance on the several Pass Courses of Lectures or instruction, are £1 for each Course extending over one Term only, and £2 for each Course extending over more than one Term of a Session, when attended for the first time, and £1 for each re-attendance on the same.

This rule applies in all cases except the following:—

The Fee payable for the Course of Anatomy and Physiology is £3, when attended for the first time, and £2 for every subsequent attendance; and the Fee payable for Practical Anatomy or Practical Chemistry is £3 for each attendance.

The Fees payable for attendance upon Honor Courses of Lectures and upon Courses of Special Instruction not prescribed as a qualification for a Degree or other University distinction, are £2 for each Course, whether attended for the first time or re-attended.

This rule does not apply to special instruction in Practical Chemistry and in Operative Surgery. In the former case, the Fee is regulated by the time spent in the laboratory, at the rate of £1 a month. The Fee for Operative Surgery is £3.

Matriculated Students who attend voluntary Courses are, so far as these Courses are concerned, regarded as Non-Matriculated.

TABLE showing in each case the *minimum* amount of Fees payable by Students to the College and for attendance on the several prescribed Courses of Lectures and Instruction.

	First Session.	Second Session.	Third Session.
	£ s. d.	£ s. d.	£ s. d.
For the Degree of B.A.,	9 10 0	7 5 0	8 5 0
If a Scholar,	5 0 0	3 15 0	4 5 0
For the Degree of M.D.,	—	—	—
If a Scholar,*	—	—	—
For the Diploma of Elementary Law,	4 10 0	4 5 0	2 5 0
If a Scholar in Law,	2 10 0	2 5 0	1 5 0
For the Degrees of LL.B. and LL.D.	13 10 0	11 5 0	10 5 0
If a Scholar in Arts,	9 0 0	7 15 0	6 5 0
If a Scholar in Law,	11 10 0	9 5 0	5 5 0
For the Diploma of Civil Engineering,	10 10 0	12 5 0	6 5 0
If a Scholar,	5 10 0	6 5 0	3 5 0

* The Fees for the Degree of M.D. vary according to the course of study pursued.

In all cases the Fees are payable in two instalments. The first instalment includes the College Fee—which is 10*s.* for the first year, and 5*s.* for every subsequent year—and a moiety of the Class Fees payable to the several Professors whose lectures are prescribed in the curriculum. This first instalment is payable at the commencement of the First Term in which the Student enters. The second instalment—consisting of the remaining moiety of the Class Fees—is payable at the commencement of the Second Term. Scholars are exempted from the payment of this latter moiety. *Appendix, No. 1.*

Residences.

It is provided by the Statutes that every Matriculated Student under the age of twenty-one years shall reside, during the College Terms, with his parent or guardian, or with some relation or friend to whose care he shall have been committed by his parent or guardian, or in a Boarding-house, licensed by the President of the College, and arranged for the reception of Students, where he shall be placed under the moral care and spiritual charge of the Dean of Residences of his creed.

Discipline.

All Matriculated Students are required to wear a cap and gown.

A penalty of sixpence shall be imposed on any Student who shall appear within the quadrangle without his cap and gown.

The Porter at the lodge is instructed to report to the Bursar the name of any Matriculated Student who shall appear within the quadrangle without his cap and gown, and also to intimate to the Student at the time that he will be reported.

Any Student so reported shall pay the fine to the Bursar within one week, without receiving further notice, and the fine shall be doubled every week that the fine remains unpaid.

A Professor may inflict a fine not exceeding 2*s.* 6*d.* on any Student for any breach of discipline in his class which he does not consider of sufficient importance to bring under the notice of the Council.

Members of the Library Committee may inflict a fine not exceeding 2*s.* 6*d.* on any Student, for any breach of discipline in the Library, which they do not consider of sufficient importance to bring under the notice of the Council.

Library Regulations.

The Library is open from the commencement of the Session to the 1st of March, between the hours of 10 A.M. and 4 P.M., and from the 1st of March to the 1st of July, between the hours of 10 A.M. and 5 P.M., except (1) on College holidays; (2) for a period of five days in the Christmas and Easter recesses respectively.

The Library is closed during the month of July, except for one hour each week, when the Librarian attends to issue books. From the 1st of August to the commencement of the College Session the Library is open between the hours of 11 A.M. and 3 P.M.

No Student is admitted to the Library without subscribing the following declaration:—

We the undersigned do hereby promise to the President and Council of the Queen's College, Galway, that we will not mark, turn down the leaves of, or write on paper placed upon, or in any way whatsoever soil, deface, injure, or remove, without permission, any book or document in the Library of said College. We also promise that we will not injure the Library furniture; that we will faithfully observe all the rules made for the regulation of the Library, and that we will acquaint the College Authorities with any serious instance of violation of the above rules which may come under our notice.

Appendix, No. 1.

No Student can borrow books from the Library until he has deposited the sum of £1 with the Bursar.

No Student can have more than two volumes on loan from the Library at the same time.

No Student can retain a volume borrowed from the Library more than one week; but the borrower, on returning the book, may renew the loan, if the book has not been in the meantime applied for.

Any Student, on receiving at any time a notice from the Librarian, must return, within twenty-four hours, the books belonging to the Library in his possession.

Any person losing or injuring a book belonging to the Library must replace it by another copy of the same edition and of equal value, or pay such a sum of money as will enable the College to replace it.

FACULTY OF ARTS.

THE DEGREES OF B.A. AND M.A.

1.—*The Degree of Bachelor in Arts.*

Candidates for the Degree of B.A. in the Queen's University, must on entering Queen's College, Galway, pass the following Matriculation Examination.

MATHEMATICS.

Arithmetic—Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—Including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

THE GREEK LANGUAGE.

Any one of the following authors which the Candidate may select:—
Homer—Iliad, Books I.-IV.
Xenophon—Anabasis, Books I.-III.
Lucian—Walker's Selections.

THE LATIN LANGUAGE.

Any one of the following authors which the Candidate may select:—
Virgil—Æneid, Books I.—V.
Horace—Odes, Book I.; Satires, Book I.
Sallust—Conspiracy of Catiline, and Jugurthine War.
Cæsar—Gallic War, Books V., VI.
Re-translation from English into Latin of portions of Cæsar.

HISTORY AND THE ENGLISH LANGUAGE.

History, Grecian and Roman, Outlines of.
Geography, Ancient and Modern, Outlines of.*
Grammar, English Grammar, and Composition.

Students are admitted to the University Examination for this Degree who, after having passed the Matriculation Examination, have attended the College Lectures for at least two full terms in each Session, have passed the prescribed College Examinations, and are recommended for promotion to the Degree by the President of the College.

* Rev. T. K. Arnold's Handbooks are recommended.

The Session extends from the third Tuesday in October to the second Saturday in the following June, with short recesses at Christmas and Easter. Each Session consists of three Terms. *Appendix, No. 1.*

The studies for the Degree of Bachelor in Arts extend over three Sessions, and comprise attendance on the following Curriculum :—

FIRST SESSION.

English (One Term).
Greek.
Latin.
A Modern Continental Language.
Mathematics.

SECOND SESSION.

Logic (One Term).
Natural Philosophy.

Along with any two of the following :—

Greek (Second Course).
Latin (Second Course).
A Modern Continental Language (Second Course).
Mathematics (Second Course).

THIRD SESSION.

English Language and Literature.
Metaphysics, or History, or Political Economy (Two Terms).
Chemistry.
Zoology, or Botany.

Attendance on these Courses includes passing such Examinations as may be appointed by the College Council, and the catechetical parts of the Courses of Lectures.

In each College there is a General Examination in the subjects upon which lectures have been delivered during the Session. There is also a Supplementary Examination in the same subjects, at the commencement of the following Session. All Students must pass either the General Examination or the Supplementary Examination, before they proceed with the course of the succeeding year.

Candidates for the Degree of Bachelor in Arts must reside at their respective Colleges during at least the first two Terms of each Session, but may be exempted from residence during the third Term by a special grace of the College Council.

Third year's Students may substitute attendance on one or on two Courses of Honor Lectures, for attendance upon a like number of the Courses above set down for study in the Third Session.

Candidates for the Degree of Bachelor in Arts are required to pass two University Examinations—the Previous Examination held simultaneously in each of the Colleges of the University, and the Degree Examination held in the Hall of the University in Dublin.

Students who have completed their second Session must pass the Previous Examination before rising to the third year, unless prevented by illness or other inevitable accident, in which case the Senate may admit them to a Supplementary Examination.

For the regulations as to the First University Examination in Arts, and the Examination for the Degrees of B.A. and M.A., see the "University Regulations."

For the Exhibitions awarded at the First University Examination in Arts, see p. 39.

Appendix, No. 1.

DAYS AND HOURS OF LECTURES.

	Subjects.	Terms.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Year	French,	1, 2, 3,	10	.	10	10	.	.
	German,	1, 2, 3,	.	2	.	2	.	.
	Latin (pass),	1, 2, 3,	12	.	12	.	12	.
	Greek (pass),	1, 2, 3,	.	11	.	12	.	12
	Mathematics (pass),	1, 2, 3,	1	.	1	.	1	.
	English,	2	11	.	11	.	11	.
	Latin (honor),	1, 2, 3,	.	11	.	11	.	11
	Greek (honor),	1, 2, 3,	12	.	12	.	12	.
	Mathematics (honor),	1, 2, 3,	.	1	.	1	.	.
2nd Year	French,	1, 2, 3,	3	.	3	.	.	.
	German,	1, 2, 3,	2	.	.	.	3	.
	Greek,	1, 2, 3,	.	10	.	11	.	.
	Latin,	1, 2, 3,	11	.	11	.	10	.
	Mathematics (pass),	1, 2, 3,	.	1	.	1	.	.
	Natural Philosophy (pass),	1, 2, 3,	.	12	.	12	.	12
	Logic,	2,	1	.	1	.	1	.
	Mathematics (honor),	1, 2, 3,	12	.	12	.	12	.
	Natural Philosophy (honor),	1, 2, 3,	.	2	.	2	.	.
3rd Year	Zoology or Botany,	1, 2, 3,	.	11	.	11	10	11
	Chemistry,	1, 2, 3,	12	.	12	.	12	.
	English Language and Literature,	1, 2,	3	.	3	.	3	.
	Metaphysics,	1, 2,	.	1	.	1	.	1
	History,	1, 2,	2	.	2	.	2	.

JUNIOR SCHOLARSHIPS IN ARTS.

Of the Thirty Junior Scholarships appropriated to Students in the Faculty of Arts :—

Ten are tenable by Students of the First Year.
Ten " " Second Year.
Ten " " Third Year.

Of the ten Junior Scholarships in Arts tenable by Students of each year, five are awarded for proficiency in literary studies, and five for proficiency in scientific studies ; but it is competent for the Council, in case Scholarships in either department are withheld on the ground of insufficient answering, to assign the unawarded Scholarships to the other department.

The Examination for Junior Scholarships in Arts of the first year takes place immediately after the first Matriculation Examination of the Session, and is open to all Students of the first year, who have passed that Examination, and have paid the regulated fees. Those candidates to whom Scholarships are then awarded hold their Scholarships for one year.

There is a further Examination, at the commencement of the second year, which is open to all Matriculated Students in Arts of that year who have passed the Examination and attended the lectures prescribed to Students of the first year, and who have paid the regulated fees.

Those Candidates to whom Scholarships are awarded at this further Examination, hold their Scholarships for two years, provided (1) they answer sufficiently in two Honor Courses at the Sessional Examination of the second year ; (2) they pass the First Examination for the Degree of B.A.

If any Student be placed, at the Examinations for Junior Scholarships in Arts, first on both the lists of candidates, he is entitled to a Scholarship of each division ; but in no other case can two Scholarships be held by the same Student.

SCHOLARSHIP EXAMINATIONS.—SESSION 1864-65.

LITERARY SCHOLARSHIPS, FIRST YEAR.

THE GREEK LANGUAGE.

Homer—Iliad, Books I.–VI.
Euripides—The Ion.
Xenophon—The Anabasis, Books I.–III.
Lucian—Walker's Selections.

THE LATIN LANGUAGE.

Virgil—The Æneid, Books I.–VI.
Horace—The Odes, Books I., II.; the Satires; the Epistles.
Cicero—De Senectute; De Amicitia.*
Sallust—Conspiracy of Catiline, and Jugurthine War.
Livy—Books I.–III.

COMPOSITION.

In Greek, Latin, and English Prose.†

HISTORY AND GEOGRAPHY.

Grecian History, to the Death of Alexander.‡
Roman History, to the Accession of Augustus.§
Outlines of Ancient and Modern Geography.‖

SCIENCE SCHOLARSHIPS, FIRST YEAR.

MATHEMATICS.

Arithmetic :—

Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.

Algebra :—

Including the Solution of Simple and Quadratic Equations; Arithmetical and Geometrical Progressions; Permutations and Combinations; the Binomial Theorem; the nature of Logarithms.

Geometry :—

Euclid, Books I., II., III., IV., and VI., with definitions of Book V.

Plane Trigonometry :—

So far as to include the Solution of Triangles.
The use of Logarithmic and Trigonometrical Tables.

LITERARY SCHOLARSHIPS, SECOND YEAR.

THE GREEK LANGUAGE.

Homer—Book VI.–XII.
Plato—The Apology and the Crito.
Xenophon—Hellenica, I.–IV.
Æschylus—Prometheus Vinctus.

* The oration Pro Lege Manilia will be substituted in the year 1866–67.
† Rev. T. K. Arnold's Introductory Works on Greek and Latin Prose Composition are recommended.
‡ Dr. William Smith's History of Greece is recommended.
§ Liddell's Roman History is recommended.
‖ Dr. William Smith's Handbook of Ancient Geography is recommended.

Candidates will be examined in Dr. Smith's History of Greece, and in Curtius' larger Greek Grammar, edited by Dr. Smith.

The following books are recommended:—Merivale's Fall of the Roman Republic; Abeken's Life and Letters of Cicero; Mommsen's Roman History, Vol. I.; and Ramsay's Roman Antiquities, fourth edition.

Appendix, No. 1.

THE LATIN LANGUAGE.

Cicero—Pro Milone.
Cicero—Letters to Atticus, Books I., II.
Livy—Books XXI., XXII.
Terence—Adelphi.
Virgil—Georgics.

THE ENGLISH LANGUAGE.

The Comparative Study of Languages, as treated in Wiseman's Lectures on the connexion between Science and Revealed Religion, Lectures I., II. The History and Structure of the English Language, as treated in Craik's Manual of the English Language and Literature to Chaucer (inclusive).
Whately—Rhetoric, Part III.
Shakespeare—Macbeth.

MODERN LANGUAGES.

French :—

Racine—Athalie.
Mignet—Révolution Française.
An Extract from any other French Author.
French Grammar.
Outlines of French Literature.

Or,

German :—

Schiller—Wilhelm Tell, Acts I. and II., and Minor Poems.
German Grammar.
Outlines of German Literature.

HISTORY AND GEOGRAPHY.

As in the First Year.

COMPOSITION.

In Latin Verse, and in Greek, Latin, English, and French or German, Prose.

Science Scholarships, Second Year.

MATHEMATICS.

The Course appointed for Science Scholarships of the first year.

Algebra :—

Nature and Simple Transformations of Equations; the Solution of Cubic and Biquadratic Equations; Method of Indeterminate Coefficients.

Geometry :—

Elements of Solid Geometry.

Trigonometry :—

Plane and Spherical.

Analytic Geometry :—

Discussion of the Equations of the Right Line and Circle.

The Professor's Lectures to the Class of the First Year.

Senior Scholarships.

The College is empowered to award Seven Scholarships, of the value of forty pounds each, by examination, to the most distinguished Students who shall have proceeded to the Degree of B.A., for proficiency in special departments of study. Of these Scholarships one is awarded for proficiency in each of the following departments :—

1. The Greek and Latin Languages, and Ancient History.
2. The Modern Languages, and Modern History.
3. Mathematics.
4. Natural Philosophy.
5. Metaphysical and Economic Science.
6. Chemistry.
7. Natural History.

I.—GREEK AND LATIN LANGUAGES, AND ANCIENT HISTORY.

The Greek Language :—

Thucydides—Book VI.
Plato—Theætetus.
Demosthenes—De Coronâ.
Pindar—Pythian Odes.
Aristophanes—The Clouds.
Odyssey, last 12 Books.
Translations from unprepared Greek.

The Latin Language :—

Cicero—De Finibus.
Tacitus—Annals, Books I.–VI.
Plautus—Aulularia.
Juvenal and Persius.
Translations from unprepared Latin.
Composition in Greek and Latin Prose.

Ancient History :—

Grote's History of Greece, Chaps. LV.–LXVIII.
Mommsen's Roman History.
Mure's History of the Language and Literature of Greece.
Müller's History of Grecian Literature, continued by Donaldson, to the end of chap. xlii.

II.—MODERN LANGUAGES AND MODERN HISTORY.

The English Language :—

Prof. Max Müller's Lectures on the Science of Language (First Series).
Craik's History of English Literature, Vol. II.
Johnson's Preface to Shakespeare.
Chaucer—Prologue of the Canterbury Tales.
Spenser—Fairy Queen, Book I.
Milton—Comus, L'Allegro and Il Penseroso.
Dryden—Absalom and Achitophel.
Pope—Essay on Criticism.

The French Language:—

La Bruyère—Les Caractères.
Molière—Le Misanthrope.
Extracts from writers of the present century.
History of French Literature.
French Composition.

The German Language :—

Schiller—Die Braut von Messina.
Lessing—Hamburgische Dramaturgie.
Extracts from writers of the present century.
History of German Literature.
German Composition.

Modern History :—

Hallam's Middle Ages, Chaps. I. and II. (last edition, with the notes).
Lingard—History of England, from the Norman Conquest to the close of the reign of Henry VII.

III.—MATHEMATICS.

The Mathematical Course appointed for the Science Scholarship of the second year; theory of Algebraical Equations, including their numerical solution; Analytic Geometry of two and of three dimensions; Differential and Integral Calculus, including its application to Geometry.

IV.—NATURAL PHILOSOPHY.

Selections from Duhamel's Cours de Mécanique.
Walton's Mechanical Problems.
Walton's Hydrostatical Problems.
Parkinson's Optics.
Hymer's Astronomy.
Jamin's Traité de Physique.
Lloyd's Lectures on the Wave Theory of Light.
The Professor's Lectures to the Honor Class of the Third Year.

Appendix, No. 1.

V.—METAPHYSICAL AND ECONOMIC SCIENCE.

Metaphysics:—

Descartes—Discours de la Méthode, and Meditationes de Primâ Philosophiâ.
Locke and Kant—Philosophical Systems of.
Sir William Hamilton—Lectures on Metaphysics, Vol. II.
Archer Butler—Lectures on Aristotle.
Mansel—Prolegomena Logica.

Jurisprudence:—

Jurisprudence as treated in the Professor's Lectures.
Austin's Province of Jurisprudence, Lectures I., II., V., and VI., and Appendix.
Dumont's Bentham—Principes de Législation.
Stephen's (James Fitzjames) Criminal Law of England, omitting chap. VII., so far as p. 265, and from p. 338 to end.
Sandars' Institutes of Justinian, Introduction, and Books I. and II.
Maine's Ancient Law.

Political Economy:—

Political Economy, as treated in the Professor's Lectures.
Mill's Principles of Political Economy.
Smith's Wealth of Nations (omitting from the digression concerning the value of Silver, Book I., chap. xi., part 3, to the end of Book I., Book III., and chaps. iv.–ix. of Book IV.)
Ricardo's Political Economy, chapters VII. to XVI.
Senior's Political Economy.
Cairnes' Logical Method of Political Economy.
Göschen's Foreign Exchanges.

VI.—CHEMISTRY.

Theoretical Chemistry:—

The works of Graham, Kane, Miller, Gregory, and Regnault.
Liebig's Chemical Letters (third edition).
Ronalds and Richardson's edition of Knapp's Chemical Technology.

Practical Chemistry:—

Analysis, and an acquaintance with Manipulation to the extent to which it is carried out in the *Practical Course* prescribed for Medical Students will be considered the minimum. (Bowman's Introduction to Practical Chemistry is recommended.)

VII.—NATURAL HISTORY.

Henfrey's Botany.
Carpenter's Comparative Physiology.
Dallas's Animal Kingdom; Green's Manuals.
Whewell's Philosophy of the Inductive Sciences, Vol. I., Book VII., chap. i., Book VIII., chaps. i., ii., iv., Book IX., chap. vi.
Whewell's History of the Inductive Sciences, Vol. III., Books XVI., XVII.
Practical Examinations in Botany and Zoology.

PRACTICAL COURSE FOR COMMERCIAL AND GENERAL PURSUITS.

In order to extend the advantages of higher education to youths intended for commercial and general pursuits, the Senate has resolved to institute special courses of instruction, and to grant Diplomas, conferring the title of Licentiate in Arts, under the following conditions:—

1. To have matriculated in one of the Colleges of the Queen's University.
2. To have pursued, in one of the Colleges of the Queen's University, the course herein prescribed.
3. To have passed the University Examination herein prescribed.

The studies for the Diploma of Licentiate in Arts extend over two Sessions, and comprise attendance on the following Curriculum:—

FIRST SESSION.

Two Languages, of which one may be English.
Mathematics.
Another Course on any subject in the annexed list.

SECOND SESSION.

Greek, Latin, or a Modern Continental Language.
Logic (one Term).
Natural Philosophy.
And two other Courses on subjects in the annexed list.

If any of the courses, except that on Logic, extend over one term only, some other course from the annexed list must be attended as a supplement to it, but not necessarily in the same Session.

Credit will not be given for attending the same course of Lectures a second time.

Attendance on the courses is, in all cases, understood to include passing such Examinations as the College Council shall appoint, and the catechetical parts of the courses of Lectures.

Candidates for the Diploma of Licentiate in Arts must reside at their respective Colleges during at least the first two terms of each Session.

After having completed the above curriculum, each Candidate for the Diploma is required to pass a University Examination in either Greek, Latin, or a Modern Continental Language; in Mathematical Science; and in two other subjects which he is allowed to select from the annexed list, viz. :—

The Mathematical Sciences.
The Experimental Sciences.
The Natural Sciences.
Geometrical Drawing.
Mensuration, Levelling, and Mapping.
Anatomy and Physiology.
English Language and Literature.
The Modern Continental Languages.
Greek.
Latin.
Logic.
Metaphysics.
History.
Political Economy.

English Composition forms a part of all University Examinations.

Licentiates in Arts who may desire to proceed to the Degree of Bachelor in Arts, may enter directly on the second Session in the course for this Degree, provided they attend in it, instead of the usual curriculum, all the courses prescribed for the first two years which they shall not have already attended in the curriculum for the Diploma of Licentiate.

In compliance with the first of the above specified conditions, the Council of the Queen's College, Galway, has instituted the following course for the Matriculation Examination :—

MATHEMATICS.

Arithmetic—Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—Including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

GEOGRAPHY AND THE ENGLISH LANGUAGE.

Geography—Ancient and Modern, Outlines of.
Grammar—English Grammar and Composition.

Appendix, No. 1.

FACULTY OF LAW.

Diploma of Elementary Law.

Candidates for the Diploma of Elementary Law are required to pass a Matriculation Examination in the following subjects :—

GREEK.

Xenophon—Anabasis, Book I.
Grammar.

LATIN.

One of the following authors :—

Cæsar—Gallic War, Book V.
Virgil—Æneid, Book I.

Retranslation from English into Latin of portions of Cæsar.

HISTORY AND THE ENGLISH LANGUAGE.

History—Outlines of Grecian and Roman History.
Geography—Outlines of Ancient and Modern Geography.
English—English Grammar and Composition.

MATHEMATICS.

Arithmetic—including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

Students who have passed the Matriculation Examination, and have pursued, during three years, the following courses of study, are admitted to Examination for the Diploma of Elementary Law :—

FIRST YEAR.

The Law of Property, and the Principles of Conveyancing.
Jurisprudence.

SECOND YEAR.

Equity and Bankruptcy.
Civil Law.

THIRD YEAR.

Common and Criminal Law.

JUNIOR SCHOLARSHIPS IN LAW.

Of the three Junior Scholarships appropriated to the Faculty of Law, one is awarded to a Student of the First Year, one to a Student of the Second Year, and one to a Student of the Third Year.

SUBJECTS OF EXAMINATION.—FIRST YEAR.

LAW OF PROPERTY, &c.

Williams' Real Property.

JURISPRUDENCE AND CIVIL LAW.

Austin's Province of Jurisprudence. Lect. I.
Selections from the "Traité de Législation" of Dumont's Bentham, viz., "Principes de Législation" (omitting chaps. 6, 9, and 11).
Sandars' Institutes of Justinian, Introduction.
Maine's Ancient Law, chaps. II. and V.

SECOND YEAR.

All the business of the preceding Session.

EQUITY.

Smith's Manual of Equity Jurisprudence.

LAW OF PROPERTY, &c.

Williams' Personal Property; Smith's Lectures on the Law of Contracts.

JURISPRUDENCE AND CIVIL LAW.

The same as the course for the first year, together with

Austin's Province of Jurisprudence, Lectures V., VI., and Introduction.
Dumont's Bentham—"Principes du Code Civil," 1st and 2nd Parts.
Sandars' Justinian, Book I.
Stephens' Criminal Law of England, chaps. I., III., IV., V.
Maine's Ancient Law, chaps. VIII.. IX., X.

THIRD YEAR.

All the business of the two preceding Sessions.

LAW.

Broom's Commentaries on the Common Law, Books II., III., and IV.
White and Tudor's Leading Cases in Equity, vol. I.

JURISPRUDENCE AND CIVIL LAW.

The same as the course for the second year, together with

Sandar's Justinian, Book II.
The remainder of Maine's Ancient Law.
The remainder of Stephens' Criminal Law of England (omitting chap. VII., so far as p. 265, and from p. 338 to the end).
Hallam's Middle Ages, chap. VIII.

THE DEGREES OF LL.B. AND LL.D.

Candidates for the Degree of LL.B. are admitted to Examination for that Degree from the Queen's University in Ireland, one year after they have obtained the Degree of B.A., and completed the above curriculum for the Diploma in Elementary Law.

Candidates for the Degree of LL.D. are admitted to Examination for that Degree from the Queen's University in Ireland, at the expiration of two years after they have obtained the Degree of LL.B.

SENIOR SCHOLARSHIP.

The College is empowered to award one Scholarship of the value of forty pounds, by Examination, to the most distinguished Student who shall have proceeded to the Degree of B.A., and who shall have completed the Course of legal study prescribed to candidates for the Degree of LL.B. The following is the course prescribed for Examination:—

JURISPRUDENCE AND CIVIL LAW.

The same as the course in these subjects for the Senior Scholarship in Arts (see p. 20).

PRINCIPLES OF CONSTITUTIONAL AND INTERNATIONAL LAW.

Hallam's Constitutional History of England; Kent's "Lectures on International Law" (prefixed to his "Commentaries"); Letters of "Historicus."

Appendix, No. 1.

MEDICAL JURISPRUDENCE.

Works recommended—Smith's Analysis of Medical Evidence; Beck's Medical Jurisprudence; Taylor's Medical Jurisprudence; Orfila, Médecine Légale; Christison on Poisons; Abercrombie on the Intellectual Powers; Guy's Medical Jurisprudence; Sedillot, Manuel complet de Médecine Légale.

ENGLISH LAW.

All the business of the preceding Sessions.

LAW OF PROPERTY, &c.

All the business of the preceding Sessions :—

Jarman on Wills; Sugden on Powers; Taylor on Evidence.

PRIVILEGES OF LAW STUDENTS.

By the recent regulations of the Benchers of the King's Inns, candidates for the Bar who attend the Law Lectures in the Queen's Colleges, possess the same privileges as Students who attend the Lectures in Trinity College, Dublin.

Students intending to proceed for the Certificate of the Law Professors, so as to entitle them to serve an apprenticeship of *four* years instead of *five*, under the provisions of *an Act for amending the several Acts for the Regulations of Attorneys and Solicitors* (14 and 15 Vict., cap. 88), are required to enter their names with the Registrar, *either as Matriculated or Non-Matriculated* Students, and pay the necessary College and Class Fees to the Bursar before the commencement of the Law Lectures in each Session.

Such Students are required to attend all the Lectures and pass all the Examinations prescribed for the first and second years of the course of study for candidates for the Diploma of Elementary Law.

FACULTY OF MEDICINE.

Degrees of M.D. and M.Ch.

Each Candidate for the Degree of Doctor in Medicine, or Master in Surgery, is required—

1. To have passed in one of the Colleges of the Queen's University the Entrance Examination in Arts, and to have been admitted a Matriculated Student of the University.
2. To have attended in one of the Queen's Colleges, lectures on one Modern Continental Language for six months, and Lectures on Natural Philosophy for six months.
3. To have also attended, in some one of the Queen's Colleges, at least two of the courses of Lectures marked with an asterisk in the following list. For the remainder of the courses, authenticated certificates will be received from the Professors or Lecturers in Universities, Colleges, or Schools, recognised by the Senate of the Queen's University in Ireland.
4. To pass two University Examinations—the first University Examination and the Degree Examination.

The curriculum shall extend over at least four years, and shall be divided into periods of at least two years each.

Candidates are recommended to pass the Matriculation Examination, prior to entering on the second period.

It is recommended that the first period shall comprise attendance on the following courses of medical lectures :—

*Chemistry.
*Botany with Herborizations for practical study, and Zoology.
*Anatomy and Physiology.
*Practical Anatomy.
*Materia Medica and Pharmacy.

And that the second period shall comprise attendance on the following courses of medical lectures :— *Appendix, No. 1.*

Anatomy and Physiology (*second course*).
Practical Anatomy (*second course*).
*Theory and Practice of Surgery.
*Midwifery.
*Theory and Practice of Medicine.
*Medical Jurisprudence.

In addition to the above courses of lectures, candidates shall have attended, during either the first or second period—

A Modern Continental Language (in one of the Colleges of the University).
Experimental Physics (in one of the Colleges of the University).

Also, during the first period—

Practical Chemistry (in a recognised Laboratory).
Medico-Chirurgical Hospital (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered, at least two each week—a winter session of six months.

And during the second period—

Practical Midwifery, at a recognised Midwifery Hospital, with the clinical lectures therein delivered, for a period of three months, in an hospital containing not less than thirty beds; or six months in an hospital containing not less than fifteen beds.
Medico-Chirurgical Hospital (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered—eighteen months; including either three winter sessions of six months each, or two winter sessions of six months each, and two summer sessions of three months each.

Medical Examinations are held in June, and in September and October.

The June Examinations are Pass Examinations, and commence on the Tuesday following the second Saturday in June.

The Honor Examinations commence on the last Tuesday in September, and are followed by Pass Examinations.

Each candidate for examination in June must forward to the Secretary, on or before the first of June, notice of his intention to offer himself as a candidate, along with his certificates; and each candidate for examination in September or October must forward similar notice, along with his certificates, on or before the first of September.

The First University Examination in Medicine.

The First University Examination may be passed either in June or September.

It is competent for Students to present themselves for the First University Examination at the termination of the first period of the curriculum, or at any subsequent period.

Before being admitted to examination, each candidate must produce satisfactory evidence of having completed the course recommended for study during the first period of the curriculum.

The First University Examination comprises the subjects recommended for study during the first period of the curriculum, along with which any Candidate may present himself for examination in Experimental Physics and Modern Languages, if he have already attended in one of the Queen's Colleges the prescribed courses on these subjects.

Appendix, No. 1.

The course of Experimental Physics to be prepared is—

In Mechanics—Experimental proof of the parallelogram of forces; composition and resolution of parallel forces; conditions of equilibrium in the lever, wheel and axle, pulley, inclined plane, and screw; laws of motion—motion of falling bodies.

In Hydrostatics—Equilibrium of fluids; pressure of fluids on plane surfaces; methods of determining the specific gravity of solids, liquids, or gases; method of measuring the pressure of the atmosphere; Mariotte's law; construction and principle of syphon, barometer, manometer, air pump.

In Acoustics—Cause of sound; its propagation and velocity in solids, liquids, or gases; reflexion and refraction of sound; numerical evaluation of musical sounds; construction of syren; use of monochord.

In Heat.—Construction and use of thermometers and pyrometers; laws of the expansion of solids, liquids, and gases; fusion and solidification; specific heat; latent heat; action of freezing mixtures.

In Light.—Experimental proofs of laws of reflexion and refraction; formation of images by plane and spherical mirrors and by lenses; analysis of solar light; dispersion produced by a prism or lens; achromatic prism; achromatic lens; simple and compound microscope; polarization of light by reflexion; by transmission; colours of polarized light.

In Magnetism.—Natural and artificial magnets; neutral line and poles; mutual action of magnets; hypothesis of two magnetic fluids; magnetic induction; terrestrial magnetism; directive action of the earth; magnetic meridian; magnetic declination; inclination; intensity; methods of measuring their amount and variations.

In Electricity.—Development by friction; conductors and non-conductors; mutual action of bodies charged with electricity; measurement of electrical attractions and repulsions; theories of electricity; electrical induction; electroscopes and electrical machines; Leyden jar; properties of electricity—mechanical, thermal, chemical, magnetic, physiological.

Voltaic pile and its modifications; single and two fluid batteries; direction of current in battery; chemical, thermal, and luminous effects of battery; induction of currents by currents; mutual action of currents and magnets; galvanometers; application of electricity to telegraphy; induction coil.

The portions of Zoology to be prepared are—

a. The general characters of the classes of the Animal Kingdom.
b. The first principles of Animal Physiology.
c. The comparative Anatomy and Classification of either the *Vertebrate* or the *Invertebrate* Animals—whichever is selected by the candidate.
d. A special practical knowledge of the leading characters and classification of either some one Vertebrate class, or some one Invertebrate sub-kingdom.

Milne-Edwards' "Zoologie" is recommended as a text-book, or Dr. Knox's translation of it, published by Renshaw, London.

English Composition forms a part of all University Examinations.

Competitors for Honors will be examined in all the subjects of the First University Examination, including Experimental Physics and Modern Languages.

Two Exhibitions, one consisting of two instalments of £20 each, the other of two instalments of £15 each, will be awarded to the best answerers at the Honor Examinations, if they be recommended by the Examiners as possessed of sufficient absolute merit. Further regulations regarding these Exhibitions will be found in p. 40.

The candidates who pass with Honors will be arranged in three classes.

Candidates who postpone passing their First Medical Examination until they present themselves at the Degree Examination are not eligible for Honors with the First Examination.

Both Honor and Pass Examinations will be held in September. The Examination held in June is a Pass Examination.

Degree Examinations in Medicine.

Examinations for the Degrees of M.D. and M.Ch. will be held in June and September.

The Fee for each Degree is Five Pounds.

Each Candidate must be recommended by the President of his College, and produce certificates to the following effect :— *Appendix, No. 1.*

1. A certificate from the Secretary of the Queen's University, that he has passed the Previous Examination, unless the candidate present himself for both Examinations simultaneously.
2. From the Council of his College, that he has passed a full Examination in the subjects of study prescribed in the entrance Course of the Faculty of Arts, and has been admitted a Matriculated Student in the Faculty of Medicine.
3. That he has attended in the Colleges of the Queen's University two of the courses marked with an asterisk on pp. 26, 27, lectures on one Modern Language, and lectures on Experimental Physics.
4. Certificates that he has completed all other prescribed courses.

The Examination for the Degree of M.D. comprises the subjects recommended for study during the second period of medical education, along with Experimental Physics and one Modern Language, unless an Examination in these subjects shall have been already passed at the First University Examination.

The Examination for the Degree of M.Ch. comprises in addition an Examination in Operative Surgery.*

Candidates who graduate with Honors will be arranged in three classes. Candidates who take a First Class will receive a Medal and Prize. Candidates who take a Second Class will receive a Prize. Candidates who take a Third Class will receive a Certificate of Honor.

The Examination for the Degree with Honors will commence on the last Tuesday in September, and will be followed by the Examination of those candidates who seek to graduate without Honors.

The Examination held in June is a Pass Examination.

Matriculation.

Candidates for the Degree of M.D. in the Queen's University are required to pass a Matriculation Examination in the following subjects :—

Greek.

Xenophon—The Anabasis, Book I.
Grammar.

Latin.

One of the following authors :—

Virgil—Æneid, Book I.
Cæsar—Gallic War, Book V.
Retranslation from English into Latin of portions of Cæsar.

English.

Grammar and Composition.

Mathematics.

Arithmetic and Algebra :—

The First four Rules of Arithmetic; Vulgar and Decimal Fractions; the Rule of Three; Addition, Subtraction, Multiplication and Division of Algebraical Quantities; Simple Equations.

Geometry :—

Euclid, Book I.

History and Geography.

History :—

Outlines of Grecian and Roman History.

Geography :—

Outlines of Ancient and Modern Geography.†

* Candidates for the Degree of Master in Surgery, who obtained the Degree of M.D. in this University before the 1st of January, 1865, will be exempted from the Examination in Operative Surgery.

† Rev. T. K. Arnold's Handbooks are recommended.

Appendix, No. 1.

DAYS AND HOURS OF LECTURES.

	Subjects.	Months.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Period.	French,	VI.	10	.	10	10	.	.
	German,	VI.	.	2	.	2	.	.
	Botany and Zoology,	VI.	.	11	.	11	10	11
	Experimental Physics,	VI.	.	12	.	12	.	12
	Chemistry,	VI.	12	.	12	.	12	.
	Logic,		1	.	1	.	1	.
	Anatomy and Physiology,		3	3	3	3	3	.
	Practical Anatomy,		1	1	1	1	1	1
	Practical Chemistry,		.	2	.	2	.	2
	Materia Medica,		4	.	4	.	4	.
2nd Period.	Practical Anatomy,		1	1	1	1	1	.
	Anatomy and Physiology,		3	3	3	3	3	.
	Surgery,		4	.	4	.	4	.
	Midwifery,		2	.	2	.	2	1
	Medicine,		.	2	.	2	.	2
	Medical Jurisprudence,		.	4	.	4	.	4

The lectures of the Professors are fully recognised by the Queen's University, the Universities of Dublin, London, Edinburgh, Oxford, Glasgow, Durham; the University and King's College, Aberdeen; the College of Physicians, London; the Royal College of Surgeons in Ireland, England, and Scotland; the Faculty of Physicians and Surgeons, Glasgow; the Apothecaries' Halls of Dublin and London; the Army, Navy, and East India Medical Boards.

The hospitals in connexion with the College are in its immediate vicinity. They contain on an average two hundred patients, and are visited every morning by Professors of the College, who deliver clinical lectures. Attendance upon these hospitals and clinical lectures fully qualifies for the Royal Colleges of Surgeons of England, Ireland, and Scotland, as well as for the Queen's University.

The Anatomical Buildings within the College grounds contain a theatre for Demonstrations and a Dissecting Room, which affords every facility for study.

The Pathological Department of the Medical Museum has received a large and valuable accession of preparations and drawings, the collection of a late eminent teacher. It contains Wax Models representing Skin Affections, and Surgical Diseases both before and after operation. The Anatomical Department contains a variety of Osteological, Vascular, and other preparations, besides Casts and Models. Instruction in Microscopic Anatomy is given in the Physiological Class-room.

The Museum of MATERIA MEDICA contains a perfect collection of the medicines in the British Pharmacopœia, both pure and spurious, and of several foreign ones; of the ores and minerals that furnish medicines, prepared medical plants, and complete series of coloured botanical plates; various apparatus for the application of medical electricity and other operations in connexion with the Materia Medica and Pharmaceutical processes.

In the department of MEDICAL JURISPRUDENCE there are, in addition, the various poisons in their several forms and combinations, and a complete collection of tests and apparatus for exhibiting toxicological and other analyses, &c.

The College has added to its means of teaching the collection of the late DOCTOR MONTGOMERY, formerly Professor of Midwifery in the King

and Queen's College of Physicians in Ireland. It consists of above 600 specimens illustrative of:— *Appendix, No. 1.*

1st. The Anatomy and Physiology of the reproductive system, comparative and human.

2nd. Parturition and deviations from the natural process.

3rd. The diseases of pregnancy and of the puerperal state.

4th. Organic derangements unconnected with these conditions; and

5th. The Pathology of intra-uterine existence.

The Library of the College contains at present many thousand volumes, and additions are being constantly made. The Medical division comprises almost every work of note in each branch of Medical Science, together with a large collection of costly plates. There is also a Lending Library, from which Students are permitted to borrow books.

SCHOLARSHIPS.

Eight Junior Scholarships are appropriated to the Faculty of Medicine of the value of £25 each. Of these—

Two	are allotted to	Students of the	First Year
Two	,,	,,	Second Year.
Two	,,	,,	Third Year.
Two	,,	,,	Fourth Year.

Regulations respecting Medical Scholarships and Exhibitions.

(Scholars are required to pay only one-half of the ordinary class fee for each obligatory course of lectures.)

First Year's Scholarships.

All Students who have passed the Matriculation Examination may compete for the Scholarships of the first year.

For the one Scholarship the Examination will embrace the course prescribed for the Literary Scholarships of the first year, in the Faculty of Arts.

For the other Scholarship the course prescribed for Science Scholarships of the first year in the Faculty of Arts.

For these courses see p. 19.

If at either of these Examinations a competent candidate do not present himself, the Scholarship assigned to that department may be awarded to the other department, if there be in the latter a second candidate duly qualified.

A Student to whom a Scholarship of the first year has been awarded, shall attend the following courses:—

A Modern Language.
Natural Philosophy.
Anatomy.
Chemistry.
Botany.
Zoology.

Second Year's Scholarships.

A Candidate for second year's Scholarship may select for the subjects of his Examination, in addition to Anatomy and Physiology, or Practical Anatomy, any two or more of the following subjects. The value of each

Appendix, No. 1.

subject shall be estimated according to the number placed opposite to it in the following list, and no mark under 100 shall be taken into account in any subject :—

Anatomy and Physiology, or Practical Anatomy,	1,000
Chemistry,	500
Botany and Zoology,	500
A Modern Language,	500
Natural Philosophy,	500
Materia Medica,	500

SUBJECTS OF EXAMINATION.

FRENCH.*

Mignet—Révolution Française.
Racine—Athalie.
Outlines of French Literature.
Translation from English into French.

GERMAN.*

Schiller—Wilhelm Tell.
Outlines of German Literature.
Translation from English into German.

NATURAL PHILOSOPHY.—Elements of Mechanics, Hydrostatics, Pneumatics, Optics, Heat, and Electricity.

ZOOLOGY.—Vertebrata.

BOTANY.—Structural and Physiological Botany; Principles of Classification; Characters of the Natural Orders yielding medicinal plants.

ANATOMY AND PHYSIOLOGY.—Histology, and Functions of the Viscera.

PRACTICAL ANATOMY.—Osteology and Orthology.

CHEMISTRY.—General Principles of Chemical Philosophy; Laws of Combination by weight and volume; Atomic Theory; Nature of Salts, &c.; Chemistry of non-metallic bodies; Chemistry of Metals; Organic Chemistry.

A Student to whom a Scholarship of the second year has been awarded shall attend such of the medical courses assigned to the first period of the curriculum prescribed in the University regulations as he has not already taken. He shall also take a course of Modern Languages and of Natural Philosophy, if he have not previously done so in a Queen's College.

THIRD YEAR'S SCHOLARSHIPS.

To be allowed to compete for a Scholarship of the third year, a Student must have attended in a Queen's College, or in some University capable of granting Degrees in Arts, Law, and Medicine, four of the following courses :—

Anatomy and Physiology.
Chemistry.
Botany.
Zoology.
Practical Chemistry.
Practical Anatomy.
Materia Medica.

The Examination shall include the following subjects. The value of each shall be estimated by the number placed opposite it in the following list; and no mark under 300 shall be taken into account in either of the first named, nor under 200 in the last named :—

Practical Anatomy,	1,000
Materia Medica,	1,000
Practical Chemistry,	500

* The candidate may select either French or German.

SUBJECTS OF EXAMINATION.

PRACTICAL ANATOMY.—Descriptive Anatomy.

During the Examination, Candidates may be called on to make dissections, or to describe structures placed before them.

MATERIA MEDICA.—Tonics, Astringents, Diaphoretics, Alkaloids, and Cathartics.

Primary and Secondary operations of the different Medicines of each class. Symptoms indicating their unhealthy action, and treatment to counteract such action.

PRACTICAL CHEMISTRY.—As taught in the class.

A Student to whom a third year's Scholarship has been awarded, shall attend, during the year of his election, four at least of the courses prescribed for the second period in the University regulations.

FOURTH YEAR'S SCHOLARSHIPS.

To be allowed to compete for a Scholarship of the fourth year, the candidate must have attended all the strictly professional courses of the first period, and must have attended in a Queen's College, or a University capable of granting Degrees in Arts, Law, and Medicine, three at least of those of the second period prescribed in the regulations of the Queen's University.

A candidate for fourth year's Scholarship may choose any four of the following subjects, provided he has attended lectures upon them, as those in which he shall be examined. The value of each subject shall be estimated by the number assigned to it in the following list, and no mark under 300 shall be taken into account:—

Anatomy and Physiology,	1,000
Practical Anatomy,	1,000
Theory and Practice of Surgery,	1,000
Midwifery and Diseases of Women and Children,	1,000
Theory and Practice of Medicine,	1,000
Medical Jurisprudence,	1,000
Materia Medica,	1,000

SUBJECTS OF EXAMINATION.

ANATOMY AND PHYSIOLOGY.—Histology, Physiology, and Development. Candidates will be required to name objects under the Microscope.

PRACTICAL ANATOMY.—Topographic and Surgical Anatomy. Candidates will be required to make dissections.

THERAPEUTICS AND PATHOLOGY.—1. Candidates must be prepared to answer in any part of the previous course of lectures in Materia Medica; Poisonous actions of Medicaments; symptoms and tests. They will also be required to write prescriptions in proper form on given subjects.

2. Diseases of the brain and nervous system.

3. Fractures; operations for Hernia; Aneurism; Ligature of Arteries.

4. Causes and treatment of difficult parturition; diseases of women; diseases of infancy.

A Student to whom a Scholarship of the fourth year has been awarded shall attend during the year of his election two at least of the practical courses prescribed for the second period in the University regulations; and if more courses are required to complete the curriculum, both as to professional and non-professional subjects, he shall also attend them.

NON-MATRICULATED STUDENTS.

ANY course or courses of lectures may be attended by Non-Matriculated Students, without passing any examination, on paying the regulated class fee to each Professor whose lectures they attend. Such Students are admissible to the Library on payment of a fee of Fifteen Shillings for the year.

Appendix, No. 1.

SCHOOL OF CIVIL ENGINEERING.

Candidates for the Diploma in Civil Engineering are required:—

1. To have been admitted Matriculated Students of one of the Colleges of the Queen's University in the Department of Civil Engineering.
2. To have studied in the Colleges of the Queen's University the course herein prescribed.
3. To have passed two University Examinations.

Candidates for Matriculation are examined in the following subjects:—

MATHEMATICS.

Arithmetic:—

Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.

Algebra:—

Including Fractions, Proportion, and the Solution of Simple Equations.

Geometry:—

Euclid, Books I., II., III., VI., with Definitions of Book V.

HISTORY, GEOGRAPHY, AND THE ENGLISH LANGUAGE.

History:—

Outlines of Ancient History.

Geography:—

Outlines of Ancient and Modern Geography.

English:—

English Grammar and Composition.

The course for the Diploma in Civil Engineering usually extends over three Sessions, and comprises attendance on the following curriculum:—

FIRST SESSION.

Mathematics (first course).
Chemistry.
A Modern Language.
Geometrical Drawing.
Office Work.

SECOND SESSION.

Mathematics (second course).
Mathematical Physics.
Experimental Physics.
Mineralogy, Geology, and Physical Geography.
Civil Engineering.
Office Work.
Field Work.

THIRD SESSION.

Natural Philosophy (applied).
Civil and Mechanical Engineering.
Office Work.
Field Work.
Engineering Excursions.

Attendance on these courses in all cases includes passing such Examinations as may be appointed by the College Council, as well as the catechetical parts of the courses of lectures.

Engineering Students must reside at their respective Colleges during at least the first two Terms of each Session, and can be exempted from residence during the third Term also, only by a special grace of the College Council.

The study of the Engineering Curriculum may be extended over more than three Sessions, on the recommendation of the College Council, and under such regulations as the Council shall impose. Some relaxation of

the order in which the subjects shall be studied will be admitted, on the recommendation of the Council.

Candidates will, on the special recommendation of the College Council, be admitted to the Diploma after two year's residence instead of three, if their previous acquaintance with a sufficient group of the subjects above set down for study in the first and second Sessions is deemed by the Council satisfactory. In such cases the certificate of the Council will be accepted in lieu of attendance upon these courses, but will not exempt candidates from the University Examinations in them.

Candidates for the Diploma in Civil Engineering are required to pass two University Examinations,—the First University Examination which is held simultaneously in each of the Colleges of the University, and the Diploma Examination which is held in the Hall of the University in Dublin.

Students who have completed their second Session must attempt the First University Examination before rising to the third year, unless prevented by illness or other inevitable accident, in which case the Senate may admit them to a Supplementary Examination.

Candidates who have attempted, but failed to pass, the First University Examination in October, will be admitted to a Supplementary Examination.

First University Examination in Engineering.

The course for the First University Examination includes French; Geometrical Drawing; Mathematics (first course); Mathematics (second course); Mensuration, Levelling, and Mapping; Experimental Physics.

The Examination will be held shortly after the commencement of the College Session, upon days which will be appointed before the 1st of October.

Each candidate must forward to the Secretary, on or before the 1st of October, notice of his intention to offer himself as a candidate, and will thereupon receive intimation of the days upon which his Examination will be held.

The candidates who pass with Honors will be arranged in three classes, the names in each class being placed alphabetically.

Two Exhibitions, one of the annual value of £20 for two years, the other of the annual value of £15 for two years, will be competed for at the Honor Examination. For the regulations regarding these Exhibitions see p. 40.

Examination for the Diploma in Civil Engineering.

The Examination for the Diploma in Civil Engineering will embrace the following course:—Engineering; Mensuration, Levelling and Mapping; Mathematical Physics; Natural Philosophy, applied; Chemistry; Mineralogy, Geology, and Physical Geography. Each candidate will also be required to produce at this Examination the Field-notes and Drawings of a Survey made by him.

Candidates who have completed the Engineering Course may present themselves as candidates for the Diploma, either with Honors or without Honors.

The Examinations for the Diploma in Civil Engineering will commence on the last Tuesday in September, and end on the second Tuesday in October. The Honor Examination will precede the Pass.

Each Candidate must forward to the Secretary, on or before the 1st of

Appendix, No. 1.

September, notice of his intention to offer himself as a candidate, and will thereupon receive intimation of the days upon which his Examination will be held.

The candidates who pass with Honors will be arranged in three classes; the names in each class will be placed alphabetically.

Candidates who take a First Class will receive a Medal and Prize.

Candidates who take a Second Class will receive a Prize.

Candidates who take a Third Class will receive a Certificate of Honor.

Candidates are recommended to provide themselves with drawing instruments and materials, viz.:—a T square; pair of set squares; pair of compasses, with pen and pencil legs; drawing-pen; 12-inch scale, divided on one edge decimally to two chains to an inch, and on the other side, duodecimally to five feet to an inch; an offset scale 20 and 40; also pencils, papers, colours, &c.

DAYS AND HOURS OF LECTURES.

	Subjects.	Terms.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Year	French,	1, 2, 3,	10	.	10	10	.	.
	Chemistry,	1, 2, 3,	12	.	12	.	12	.
	Mathematics (pass),	1, 2, 3,	1	.	1	.	1	.
	Mathematics (honor),	1, 2, 3,	.	1	.	1	.	.
	Geometrical Drawing,	1, 2, 3,	11	.	11	.	11	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
2nd Year	Civil Engineering,	1, 2, 3,	10	.	10	.	10	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
	Mineralogy, &c.,	1, 2, 3,	1	.	1	.	1	.
	Mathematical Physics (pass),	.	.	11	.	.	.	11
	Experimental Physics (pass),	1, 2, 3,	.	12	.	12	.	12
	Experimental Physics (honor),	1, 2, 3,	11	.	11	.	.	.
	Mathematical Physics (honor),	1, 2, 3,	.	2	.	2	.	.
	Mathematics (honor),	1, 2, 3,	12	.	12	.	12	.
	Mathematics (pass),	1, 2, 3,	.	1	.	1	.	.
3rd Year	Civil Engineering,	1, 2, 3,	3	.	3	.	3	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
	Natural Philosophy (applied),	1, 2, 3,	10	.	10	11	.	.

SCHOLARSHIPS.

Of the five Scholarships appropriated to the Department of Engineering, two are awarded to Students of the first year, two to Students of the second year, and one to a Student of the third year.

SUBJECTS OF EXAMINATION.—FIRST YEAR.

The course prescribed for Science Scholarship of the first year.

For this course, see p. 19.

SECOND YEAR.

The course of Elementary Mathematics prescribed for the Science Scholarship of the second year, together with the courses of Chemistry, Modern Languages as prescribed for Literary Scholarship of second year, Office Work, and Geometrical Drawing prescribed in the course for Students in Engineering of the first year.

THIRD YEAR.

The courses of Mathematics, Mathematical and Experimental Physics, Mineralogy and Geology, Engineering and Office Work, prescribed to Students of the second year.

PUBLIC COMPETITIVE EXAMINATIONS.

THE INDIAN CIVIL SERVICE.

The appointments to the Indian Civil Service have been thrown open to public competition, and are given by Examinations held under the Civil Service Commissioners.

For the subjects of Examination, and the marks allotted to each, and for the conditions under which candidates may present themselves, *see* p. 41.

As the Committee, upon whose suggestions the course was framed, contemplate that the candidates for examination for the above appointments will be, for the most part, successful competitors for the highest Collegiate and University distinctions, and anticipate that such candidates will be found to have in general aimed at attaining remarkable proficiency in some subjects of examination to the exclusion of others, classes suited to such advanced Students have been opened in Queen's College, Galway, in the following branches:—

ENGLISH LANGUAGE AND LITERATURE.—Composition, English Literature and History, including that of the Laws and Constitution. The Professor of History and English Literature will deliver two advanced courses on these subjects.

LANGUAGE, LITERATURE, AND HISTORY OF GREECE.—Two advanced courses will be delivered by the Professor of Greek, embracing all the great departments of Grecian Literature. Minute attention will be given to Grammatical Analysis, and to the Theory and Practice of Composition in Prose and Verse.

LANGUAGE, LITERATURE, AND HISTORY OF ROME.—Two advanced courses will be delivered by the Professor of Latin, embracing all the great departments of Roman Literature. Minute attention will be given to Grammatical Analysis, and to the Theory and Practice of Composition in Prose and Verse.

LANGUAGE, LITERATURE, AND HISTORY OF FRANCE—LANGUAGE, LITERATURE, AND HISTORY OF GERMANY.—The Professor of Modern Languages delivers, every Session, five courses of lectures on the Language, Literature, and History of France and Germany.

MATHEMATICS, PURE AND MIXED—Four advanced courses will be delivered by the Professors of Mathematics and Natural Philosophy, embracing the following branches, so far as the attainments of the classes will permit:—

Pure Mathematics:—

Differential and Integral Calculus; Calculus of Variations; Calculus of Operations; Calculus of Differences; Analytic Geometry of two and three dimensions; Pure Geometry of two and three dimensions.

Mixed Mathematics:—

Mechanics (Duhamel's Mécanique and Lagrange's Mécanique Analytique).—Astronomy—Lunar and Planetary Theories, Tides, Precession and Nutation; Figure of the Earth (Newton's Principia, and Pratt's Mechanical Philosophy).

Appendix, No. 1.

NATURAL SCIENCES—CHEMISTRY.—A laboratory course may be taken out under the instruction of the Professor and his Assistant, in addition to the general course.

ELECTRICITY AND MAGNETISM.—An advanced course of lectures will be delivered on Experimental Physics, embracing Electricity and Magnetism, Heat, Light, and Sound.

NATURAL HISTORY, GEOLOGY, AND MINERALOGY.—The usual courses of the Professors of Natural History, and of Geology and Mineralogy, will be found sufficient.

MORAL SCIENCES.—The Professor of Logic and Metaphysics will deliver two advanced courses of lectures—one on Logic, Deductive and Inductive, and one on Moral and Political Philosophy. The Students will also be exercised in oral examination on standard authors, and in the writing of essays on the objects of the course.

Students may select at their option any of the above courses.

Fee for attendance on each course, £2, with the exception of the laboratory course in the Chemical Department, the fee for which depends on the time spent by the Student in the Laboratory.

An annual fee of Five Shillings to be paid to the College by each Student in addition to the class fees.

INDIAN ENGINEERING ESTABLISHMENT.

For the regulations for the Competitive Examination for appointments in the Indian Engineering Establishment see Appendix.

Two of the three years which candidates for the Civil Engineering Department of the Indian Service are required to pass in the office of a Civil Engineer are dispensed with in favour of Students who have studied for two years in the Engineering School of this College.

A highly advantageous arrangement has been made to enable such candidates to complete their qualifications by passing a year in the office of a Civil Engineer.

EXAMINATIONS FOR APPOINTMENTS IN THE HOME CIVIL SERVICE AND FOR DIRECT APPOINTMENTS TO THE ADVANCED OR PRACTICAL CLASS OF THE ROYAL MILITARY ACADEMY AT WOOLWICH.

Classes have been formed in the Queen's College, Galway, for the purpose of preparing Students for the Examinations prescribed for the appointments above mentioned.

Gentlemen intending to join these classes may obtain the requisite information on application to the Registrar, Queen's College, Galway.

APPENDIX.

Prizes Founded by Public Subscription.

At a public meeting of the University in October, 1861, Sir Robert Peel offered the sum of £1,200 to found three exhibitions* of £40 each, to be competed for annually for ten years; and he expressed his desire that these prizes should be tenable along with the small Scholarships attached to the Queen's Colleges, in order that his benefaction might have the effect of increasing the value of the rewards provided for the most deserving students.

When announcing this munificent gift, Sir Robert Peel invited others to co-operate with him in thus endeavouring to promote United Education, without adding to the burden on the public purse; and his invitation met with so ready a response, that it became necessary to form a Committee, which should take charge of the subscriptions, and make regulations for the proper allocation of the funds. This Committee consisted of Sir Robert Peel, Bart., M.P. (*Chairman*); the Duke of Leinster; the Lord Talbot de Malahide, F.R.S.; the Right Honorable Abraham Brewster, M.A., Q.C.; Sir James Emerson Tennent, LL.D.; James Naper, D.L.; Alexander Thom, Esq.; Benjamin Lee Guinness, Esq.; William Malcomson, Esq.; and G. Johnstone Stoney, M.A., F.R.S. (*Honorary Secretary*).

Prizes which have been Founded.

This munificence on the part of the public has enabled the Committee to found the following prizes, to be competed for annually for ten years; and to place at interest a considerable sum,† which will accumulate and form the nucleus of a fund for continuing these most useful aids to learning beyond that time.

Exhibitions in the Faculty of Arts.

Three exhibitions of £20 a-year for three years, three exhibitions of £15 a-year for three years, and two exhibitions of £10 a-year for three years, will be competed for annually in the Faculty of Arts. The three £20 exhibitions will be awarded to the candidates who stand foremost in order of merit from each College at the First University Examination in Arts; and the three £15 exhibitions to the candidates who stand second in order of merit from each College; provided that their names appear in the First Class of the division list at that examination. Of the two £10 exhibitions, one will be awarded to the best answerer in Mathematical Science, and the other to the best answerer in the Ancient Classics at the First University Examination. The £10 exhibitions are open to the competition of candidates from all the Colleges, and may be held along with one of the larger exhibitions.

Each candidate will be deemed a Student of that College in which he shall have attended the Lectures of the Second Session; and no Student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

* This allocation was afterwards changed, and Sir Robert Peel's benefaction merged in the general fund, in order that it might aid in establishing the connected series of prizes which the support of the public has enabled the Committee to found.

† £1,980 has been already invested, and the sum reserved for accumulation will probably be soon raised to £3,000. It is the intention of the Committee to add to the reserve fund whatever further sums may be at their disposal from lapsed exhibitions or other sources; as it is very important that the assistance which is now being afforded for ten years to students in the Queen's Colleges should not be allowed to come abruptly to an end at the close of that period.

Appendix, No. 1.

The first instalment of each exhibition will be paid at the time of competition; the second when the exhibitioner takes the Degree of B.A. in the Queen's University, provided he graduate with honors, and within two academic years; and the third when he takes the Degree of M.A. in the Queen's University, provided he obtain it within three academic years from the time of competition.

Exhibitions in the Faculty of Medicine.

Two exhibitions, one consisting of two instalments of £20 each, and the other of two instalments of £15 each, will be competed for annually in the Faculty of Medicine. These exhibitions will be awarded for proficiency in the non-professional part of the First University Examination in Medicine: the £20 exhibition to the best answerer absolutely, in whichever of the Colleges he may have been educated; and the £15 exhibition to the candidate who is first in order of merit of the competitors from the other two Colleges: provided that their names appear in the First Class of the division list at that examination.

Each candidate will be deemed a student of that College in which he shall have attended the lectures of the Second Session; and no student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The exhibitions in Medicine will be paid in two equal instalments: one at the time of competition; the other when the exhibitioner takes the Degree of M.D. in the Queen's University, provided that he graduate with honors, and within three academic years from the time of competition.

Exhibitions in the School of Engineering.

Two exhibitions, one of £20 a-year for two years, and the other of £15 a-year for two years, will be competed for annually in the School of Engineering. These exhibitions will be awarded at the First University Examination in Engineering: the £20 exhibition to the best answerer absolutely, in whichever of the Colleges he may have been educated; and the £15 exhibition to the candidate who is first in order of merit of the competitors from the other two Colleges: provided that their names appear in the First Class of the division list at that examination.

Each candidate will be deemed a student of that College in which he shall have attended the lectures of the Second Session; and no student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The first instalment of each exhibition will be paid at the time of competition; the other when the exhibitioner takes the Diploma in Engineering of the Queen's University, provided that he take honors with it, and obtain it within two academic years from the time of competition.

Prizes in Composition, open to the competition of Graduates and Undergraduates.

Two prizes for English prose composition, one of £10 worth of books, and the other of £5 worth of books, have been founded, and are open to the competition of all members of the University who shall not have been graduated for more than three years at the time of competition, and who shall not have already twice obtained one or other of these prizes.

Prizes in Composition, open to the competition of all Undergraduates.

Two prizes in composition, one for English prose, the other for Greek or Latin prose, and each consisting of £5 worth of books, have been founded, and are open to the competition of all undergraduates, provided that neither the English nor the Classical prize be awarded oftener than twice to any student.

Prize in Composition, limited to the competition of Undergraduates in Medicine.

A prize of £5 worth of books has been founded, for a thesis on a subject to be prescribed, and is limited to the competition of the undergraduates in Medicine who shall not have already twice received the prize.

The subjects on which the competitors for composition prizes are to write will be announced on or before the first of June in each year; the compositions, with fictitious signatures, are to be sent in to the Secretary of the University, on or before the first of the following September, and the successful competitors will be declared at the next public meeting of the University.

Prizes at Entrance.

Two prizes for English prose composition, and two prizes for Geometry, have been founded in each College, to be awarded annually at entrance: first prize for English prose composition, £3 worth of books; second do., £2, worth of books: first prize for Geometry, £3 worth of books; second do., £2 worth of books.

All the exhibitions and prizes now founded by public subscription shall be tenable along with any other scholarships, exhibitions, or prizes to which the successful competitors may be otherwise entitled.

Persons who wish to add to this Fund may find the following forms of use:—

FORM OF DONATION.

I enclose Pounds sterling, and desire that this sum be expended in founding Exhibitions or other Prizes to encourage learning and promote industry among the Students and Graduates of the Queen's University in Ireland.

Dated at this day of , 186

(Signed),

To the Right Honorable
Sir ROBERT PEEL, Bart.,
Chairman of the Committee for augmenting the Endowments of the Queen's Colleges.

FORM OF SUBSCRIPTION FOR A TERM OF YEARS.

I enclose as the First Instalment of my Subscription to the *Fund for the Endowment of Prizes, in connexion with the Queen's University in Ireland,* and I will cause an equal sum to be lodged in the Bank of Ireland to the credit of the same Fund, before the first of January in *each* of the next years.

Dated this day of , 186

(Signed),

To the Right Honorable
Sir ROBERT PEEL, Bart.,
Chairman of the Committee for augmenting the Endowments of the Queen's Colleges.

EXAMINATIONS FOR THE CIVIL SERVICE OF INDIA.

REGULATIONS for the OPEN COMPETITION of 1865.*

1. On June 2nd, 1865, an examination of candidates will be held in London. Not less than forty candidates will be selected, if so many shall be found duly qualified. Of these, will be selected for the

* The regulations are liable to be altered in future years.

Appendix, No. 1.

Presidency of Bengal [for the Upper Provinces, and for the Lower Provinces], for that of Madras, and for that of Bombay.*—Notice will hereafter be given of the days and place of examination.

2. Any natural-born subject of Her Majesty, who shall be desirous of entering the Civil Service of India, will be entitled to be examined at such examination, provided he shall, on or before the 1st May, 1865, have transmitted to the Civil Service Commissioners, Dean's Yard, London, S.W.:—

(*a.*) A certificate of his birth, showing that his age on the 1st May, 1865, will be above seventeen years and under twenty-two years.†

(*b.*) A certificate, signed by a physician or surgeon, of his having no disease, constitutional affection, or bodily infirmity, unfitting him for the Civil Service of India.

(*c.*) Satisfactory proof of good moral character.

(*d.*) A statement of those of the branches of knowledge hereinafter enumerated in which he desires to be examined.‡

3. In any case in which a doubt may arise as to the eligibility of a candidate in respect of age, health, or character, such inquiries as may be necessary will be instituted by the Civil Service Commissioners.

4. The examination will take place only in the following branches of knowledge §:—

	Marks.
English Language and Literature:—	
Composition,	500
English Literature and History, including that of the Laws and Constitution,	1,000
	1,500
Language, Literature, and History of Greece,	750
" " Rome,	750
" " France,	375
" " Germany,	375
" " Italy,	375
Mathematics, Pure and Mixed,	1,250
Natural Science; that is, (1.) Chemistry, (2.) Electricity and Magnetism, (3.) Natural History, (4.) Geology, and (5.) Mineralogy,	500
*** No candidate will be allowed to be examined in more than three of the branches of knowledge included under this head, and the total (500 marks) may be obtained by adequate proficiency in any three.	
Moral Sciences; that is, Logic, Mental and Moral Philosophy,	500
Sanskrit Language and Literature,	375
Arabic Language and Literature,	375
	7,125

5. The merit of the persons examined will be estimated by marks, and the number set opposite to each branch in the preceding regulation denotes the greatest number of marks that can be obtained in respect of it.

6. No candidate will be allowed any marks in respect of any subject of

* The number of appointments to be made in each Presidency, &c., will be announced hereafter.

† In future competitions it is intended that the maximum limit of age shall be twenty-one.

‡ Candidates are at liberty to send in their names and evidence of age as soon as they think fit to do so; but evidence of health and character must bear date not earlier than the 1st April, 1865.

§ It should be understood that candidates are at liberty to name at their pleasure any or all of these branches of knowledge (subject only to the restriction above mentioned as to Natural Science), and that no subjects are *obligatory*.

examination unless he shall be considered to possess a *competent knowledge* of that subject.* Appendix, No. 1.

7. The examination will be conducted by means of printed questions and written answers, and by *vivâ voce* examination, as may be deemed necessary.

8. The marks obtained by each candidate, in respect of each of the subjects in which he shall have been examined, will be added up, and the names of the candidates who shall have obtained a greater aggregate number of marks than any of the remaining candidates will be set forth in order of merit, and such candidates shall be deemed to be selected candidates for the Civil Service of India. They shall be permitted to choose, according to the order in which they stand, as long as a choice remains, the Presidency (and in Bengal, the division of the Presidency) to which they shall be appointed.

9. Selected candidates before proceeding to India will be on probation for two years, during which time they will be examined periodically with the view of testing their progress in the following subjects † :—

	Marks.
1. Oriental Languages :—	
Sanskrit,	500
Vernacular Languages of India (each),	400
2. The History and Geography of India,	350
3. Law,	1,250
4. Political Economy,	350

In these examinations, as in the open competition, the merit of the candidates examined will be estimated by marks, and the number set opposite to each subject denotes the greatest number of marks that can be obtained in respect of it at any one examination. The examination will be conducted by means of printed questions and written answers, and by *vivâ voce* examination, as may be deemed necessary. The marks obtained at each of such periodical examinations will be added to those previously or subsequently obtained. The last of these examinations will be held at the close of the second year of probation, and will be called the "Final Examination," at which it will be decided whether a selected candidate is qualified for the Civil Service of India.

10. No candidate will be permitted to proceed to India until he shall have passed the Final Examination, and received a certificate of qualification from the Civil Service Commissioners, or after he shall have attained the age of twenty-four years and six months.‡

11. The selected candidates who at the Final Examination shall be found to have a competent knowledge of the subjects specified in Regulation 9, shall be adjudged to have passed, and to be entitled to be appointed to the Civil Service of India.

12. The seniority in the Civil Service of India of the selected candidates shall be determined according to the order in which they stand on the list resulting from the Final Examination.

13. No person will, even after passing the Final Examination, be allowed to proceed to India unless he shall comply with the regulations in force at the time for the Civil Service of India, and shall be of sound bodily health and good moral character. The Civil Service Commissioners

* "Nothing can be further from our wish than to hold out premiums for knowledge of wide surface and of small depth. *We are of opinion that a candidate ought to be allowed no credit at all for taking up a subject in which he is a mere smatterer.*"—Report of Committee of 1854.

† Full instructions as to the course of study to be pursued will be issued to the successful candidates as soon as possible after the result of the open competition is declared.

‡ In future years it is intended that the limit shall be twenty-four.

Appendix, No. 1.

will require such further evidence on these points as they may deem necessary before granting their certificate of qualification.

14. Applications from persons desirous to be admitted as candidates are to be addressed to the Secretary to the Civil Service Commissioners, Dean's Yard, London, S.W.

NOTE.—(1.) The Secretary of State for India in Council has authorized the Civil Service Commissioners to state that it is his intention to allow the sum of £100 for the first year of probation, and £200 for the second year to each selected candidate who shall have passed the required examinations to the satisfaction of the Commissioners, and shall have complied with such rules as may be laid down for the guidance of selected candidates.

(2.) All selected candidates will be required, at the commencement of the second year of probation, to attend at the India Office, to make the necessary arrangements for entering into covenants (binding themselves, amongst other things, to refund in certain cases the amount of their allowance in case of their failing to proceed to India), and for giving a bond for £1,000, jointly with two sureties, for the due fulfilment of the same. The stamps payable by civilians on their appointment amount to £3 10*s*.

(3.) Candidates rejected at the Final Examination of 1867 will in no case be allowed to present themselves for re-examination.

COMPETITIVE EXAMINATION of CANDIDATES for JUNIOR APPOINTMENTS in the ENGINEER ESTABLISHMENT of the DEPARTMENT of PUBLIC WORKS in INDIA, to be held at the INDIA OFFICE in LONDON, in JUNE, 1865.

Candidates must be native British subjects, and not more than twenty-three years of age, and must have complied with one or other of the three following conditions:—

1. They must have passed not less than three years as Articled Pupils of a Civil, Mechanical, or Mining Engineer; or,
2. Not less than three years in practice under a Civil, Mechanical, or Mining Engineer; or,
3. Not less than three years altogether, of which part may have been passed in practice under a Civil, Mechanical, or Mining Engineer, and part in studying Civil, Mechanical, or Mining Engineering, in a School or College recognised by the Secretary of State as possessing an efficient class for instruction in one or other of those professions, with the proviso that one year at least of the three must have been passed in practice under a Civil, Mechanical, or Mining Engineer.

On these points they must be provided with satisfactory certificates, and they must also produce testimonials of good moral character and conduct from the engineers or professors under whom they have served, or by whom they have been instructed.

These documents must be delivered at the Department of Public Works in this Office between the 1st and 27th days of May next, both inclusive, during which period only will applications be received.

The names of the candidates will then be registered, and they will be directed to appear for medical examination before the Examining Physician, who will attend at this office for the purpose, on the first Saturday in June, between the hours of 1 and 3 P.M.

If then certified to be constitutionally fit for service in India, they will be required to attend, at 9 A.M. precisely, on the succeeding Monday and five following days at a competitive examination which will be held in this office.

The candidates will first be required to write English from dictation, and unless found able to do so with accuracy and facility, will not be permitted to remain during the subsequent examination. The other subjects

of examination and the maximum number of marks obtainable for proficiency in each class of subjects will be the following :— *Appendix, No. 1.*

Mathematics.		
Arithmetic, Mensuration, and *Trigonometry,* including heights and distances,		
Algebra: Elementary Principles; Simple and Quadratic Equations; Surds; Ratios and Proportion; Arithmetical and Geometrical Progression; Combinations, and the Binomial Theorem,		220
Euclid: 1st, 2nd, 3rd, 4th, 6th, and first 21 Propositions of the 11th Book,		
Statics: Composition and Resolution of Forces, the Centre of Gravity, the Mechanical Power; Roofs, Arches, and Bridges; Strength of Materials; and Friction,		
Dynamics: First Principles; Collision of Bodies; Uniformly Accelerated Motion; Circular Motion and Centrifugal Force; Labour and Machinery,		180
Hydrostatics and *Hydraulics:* Pressure of Fluids; Specific Gravity, and Equilibrium of Floating Bodies; Elastic Fluids and Atmospheric Pressure; Hydrostatic Machines,		
Engineering.		
Projects for Bridges, Locks, Dams, Roads, and other Engineering Works,		
Making Working Drawings of Machinery and Plans, Elevations and Sections of Buildings,		280
Carpentry, Ironwork, and Properties of Materials in general,		
Free-hand Drawing,		
Map Drawing,		
Framing of Estimates and Specifications from given plans and data,		80
Surveying.		
Trigonometrical Surveying and traversing with the Theodolite,		
Land Surveying with Compass and Chain, and Plotting from a Field-Book,		240
Levelling and Use of Instruments employed,		
Geometrical Drawing,		
		1,000

No candidate will be passed who shall not obtain 600 marks, of which not less than 200 must be awarded for Mathematics, not less than 180 for Engineering, and not less than 100 for Surveying. The candidates who may obtain the prescribed minimum number of marks will be ranked by the Examiners in the order of the numbers they may severally obtain; and of these the ten who may stand highest on the list will be appointed "Probationary Assistant Engineers."

Each Probationary Assistant Engineer must, within a month of his nomination, sign a covenant, describing the terms and conditions of his appointment, and must embark for India, when required to do so by the Secretary of State in Council, who will provide for the expenses of his passage. Any nominee not embarking, when required, will forfeit his appointment. Otherwise he will be allowed pay, at the rate of 170 rupees (which is about the equivalent of £17 in English money) a month from the date of his appointment.

On arriving in India, he will, at the discretion of the Local Government, either be placed in a Civil Engineering College, or other educational institution, in order to acquire a colloquial knowledge of one of the native languages, and to receive further instruction in his profession, or be at once employed as a Civil Engineer, and if found sufficiently qualified he will, on the occurrence of a suitable vacancy, be transferred to the effective establishment of the Public Works Department, with the rank to which his attainments may entitle him, and with all the rights and privileges appertaining to that rank in respect of pay, promotion, furlough, retiring pension, &c.

India Office, 7th July, 1864.

Appendix, No. 1.

COMPETITIVE EXAMINATION of CANDIDATES for appointment as INSPECTORS of the THIRD GRADE in the TELEGRAPH DEPARTMENT in INDIA, to be held in LONDON, in MAY, 1865.

Candidates must be native British subjects, and not less than eighteen nor more than twenty-four years of age, and must have complied with one or other of the three following conditions:—

1. They must have passed not less than two years in the service of one of the English Telegraph Companies, or of a Foreign Telegraphic Administration; or,
2. Not less than two years as articled pupils of, or in practice under, a Telegraphic Engineer; or,
3. Not less than two years in a school or college recognised by the Secretary of State as possessing an efficient class for instruction in Chemistry and Physics, and during six months of that period must have given special attention to those subjects.

On these points they must be provided with satisfactory certificates, which must be delivered at the Department of Public Works in this Office between the 15th and 29th days of April next, both inclusive, between which days only will applications be received.

The names of the candidates will then be registered, and they will be directed to appear for medical examination before the Examining Physician, who will attend at this Office for the purpose, on Saturday, the 6th of May, between the hours of 1 and 3, P.M.

If then certified to be of constitutions sufficiently vigorous to bear the fatigue and exposure to which they would be liable when serving in India, they will be required to attend, at 9, A.M. precisely, on the succeeding Monday and following days, at a competitive examination, which will be held in this Office.

The candidates will first be required to write English from dictation, and unless found able to do so with accuracy and facility, will not be permitted to remain during the subsequent examination. The other subjects of examination and the maximum number of marks obtainable for proficiency in each class of subjects will be the following:—

	Marks.
1. *Arithmetic, Book-keeping* by single and double entry, *Mensuration*,	1,000
2. *Euclid*: 1st, 2nd, and 3rd Books, and *Algebra*, including simple and quadratic equations,	1,000
3. *Geography, Plane Trigonometry*, including practical knowledge of methods for heights and distances, *Use of the Logarithmic and Trigonometrical Tables*,	1,000
4. *Dynamics*, including *Statics*,	1,500
5. *Elements of Physics*, including *Electricity and Elements of Chemistry*,	1,500
6. *Theory of Electricity*; and *Telegraphic Testing*,	3,000

No candidate will be passed who shall not obtain 2,000 marks, of which not less than 1,000 must be awarded for Dynamics and Physics. The candidates who may obtain the prescribed minimum number of marks will be ranked by the Examiners in the order of the numbers they may severally obtain; and of these the twenty-five who may stand highest on the list will be appointed.

The successful candidates must, within a month of their nomination, sign covenants, describing the terms and conditions of their appointment, and must embark for India, when required to do so by the Secretary of State in Council, who will provide for the expenses of their passage. Any nominee not embarking when required will forfeit his appointment.

India Office.

INDIAN TELEGRAPH DEPARTMENT.

Present Classification of Appointments above the Grade of Signaller.

No. of Officers.	Grade.	Monthly Pay of each Officer.
		Rs.
1	Director General, . .	3,000.
1	Director of Division, .	1,000 increasing by annual additions of Rs. 100 to a maximum of Rs. 1,500.
2	,, ,, . .	700 ,, by annual additions of Rs. 50 to a maximum of Rs. 1,000.
1	Superintendent of Circle, .	700.
2	,, ,, .	600.
4	,, ,, .	500.
5	,, ,, .	400.
3	,, ,, .	350.
15	Assistant Superintendents,	300.
20	Inspectors of First Grade, .	250.
30	,, of Second Grade,	200.
40	,, of Third Grade,	150.

RULES of the HONORABLE SOCIETY of KING'S INNS, with regard to the ADMISSION of STUDENTS into the SOCIETY, and to the DEGREE of BARRISTER-AT-LAW.

I.—Every person desirous to be admitted a Student into this Society shall, in order thereto, present at the Under-Treasurer's Office, three clear days at the least before the first day of term, a memorial in the printed form, No. 1, which memorial is to be signed and lodged by the Student himself, and the certificate annexed thereto, signed by a practising Barrister of at least ten years' standing.

II.—Every Student, on presenting such memorial, shall produce a certificate of having paid at the Stamp Office the stamp duty of twenty-five pounds sterling, and also pay to the Under-Treasurer the sum of twenty-one pounds ten shillings and four pence, including five pounds five shillings for admission to the King's Inns Library, and five pounds five shillings for lectures under the recent system of legal education—the balance being the ancient fee for admission into the Society as a Student. Students of the Colleges of the Queen's University who shall elect to attend the courses of lectures in those Colleges, as hereafter provided, are exempted from paying the above sum of five guineas for lectures.

III.—Every Student not a graduate of the University of Dublin, Oxford, Cambridge, Durham, London, or the Queen's University in Ireland, shall keep nine Terms' Commons in the Dining Hall of the Society, and also eight Terms' Commons in one of the Four Inns of Court in London, and shall lodge, with the Under-Treasurer, a certificate of having kept said eight Terms' Commons in one of the said Inns of Court in London, on presenting his memorial to be admitted to the degree of Barrister-at-Law.

IV.—Every such Student, if a graduate of any of the said Universities, is only required to keep six Terms' Commons in the Dining Hall of the King's Inns, and also six Terms' Commons in one of the Inns of Court in London.

V.—Every Student admitted into the Society after the first day of Trinity Term, one thousand eight hundred and fifty, if a graduate of the University of Dublin, Oxford, Cambridge, Durham, or London, or the Queen's University in Ireland, shall, as a condition precedent to being called to the Bar, produce certificates of his having attended two complete courses *at least* of lectures—viz., One complete course of lectures of any two, at his option, of the four Law Professors—namely, the Law Professors of the University of Dublin, and those of the King's Inns, and *at least* five-sixths of the lectures of each session or University term; or if a

Appendix, No. 1.

graduate in arts of the Queen's University in Ireland, shall have the option of producing certificates of having attended two complete courses, at least, of lectures of each of the two Law Professors of any College of the Queen's University, comprising not less than thirty-six lectures, and at least five-sixths of the lectures of each course, and of having passed the examinations in the College to which he belongs, on the subjects of the aforesaid two courses of lectures, provided that the curriculum prescribed by the said two courses of lectures shall embrace all that is contained in the course now prescribed by the Professors of the King's Inns, or as the same may be from time to time varied by any rules of the Benchers.

VI.—Every Student admitted into the Society after the above date (if not a graduate of one of the said Universities) shall, as a condition precedent to being called to the Bar, produce certificates of his having attended four courses of lectures—viz., One course of the lectures of each of the said four Professors, and *at least* five-sixths of the lectures of each session or University term, in such manner, however, that every such Student shall be engaged not less than three years in the study of the law in Ireland, exclusive of the two years necessary for keeping terms in England, in every one of which three years, one complete course of lectures must be kept; any Student who shall produce certificates of his having attended during three years the courses of lectures delivered by the Professors of English Law and of Jurisprudence, in one of the Colleges of the Queen's University, and of his having passed the general examinations in such College on the subjects so lectured on, shall be deemed entitled to such and the same privileges, in respect to his being called to the Bar, as if he had actually attended one course of the lectures of each of the two Law Professors of the University of Dublin, and had been engaged for two years in such attendance; but this rule and the preceding one are not intended to affect the number of Terms' Commons required by the present rules of the Society, to be kept by Students of the King's Inns, prior to being called to the Bar.

VII.—If from illness or other sufficient cause any Student should be prevented from completing any course of lectures necessary towards being called to the Bar, the Legal Education Committee have power to direct what further attendance, if any, shall be sufficient in such case.—Rules as to Legal Education, No. 3.

VIII.—Every such Student, having complied with the foregoing Rules, desiring to be admitted to the degree of Barrister-at-Law, and being of the full age of twenty-one years, shall present a memorial in the printed form No. 2, at the Under-Treasurer's Office, three clear days at the least before the first day of term, said memorial to be signed by the Student himself; the certificate annexed thereto to be signed by a practising Barrister of at least ten years' standing, and the declaration at foot thereof by a Bencher.

IX.—Every such Student so applying for admission to the degree of a Barrister-at-Law shall, on presenting his said memorial, pay to the Under-Treasurer the sum of thirty-two pounds eighteen shillings and nine pence, being the ancient fee payable to the Society thereon, and lodge at the same time a certificate of having paid fifty pounds stamp duty at the Stamp Office; also a certificate of having kept the requisite number of terms from one of the Inns of Court in England; and if a graduate of any of the said Universities, shall also lodge a testimonium from such University of having obtained the degree of Bachelor of Arts or Bachelor of Law therein.

APPENDIX, No. 2.

Scholarship Examinations, 1864.

Literary Scholarships of the Second Year.

Greek.—*Examiner, Professor Thompson*, M.A.

Prometheus Vinctus.

Translate:—

(α). τὰ λοιπά μου κλύουσα θαυμάσει πλέον,
οἵας τέχνας τε καὶ πόρους ἐμησάμην.
τὸ μὲν μέγιστον, εἴ τις ἐς νόσον πέσοι,
οὐκ ἦν ἀλέξημ' οὐδὲν οὔτε βρώσιμον,
οὐ χριστὸν, οὔτε πιστὸν, ἀλλὰ φαρμάκων
χρείᾳ κατεσκέλλοντο, πρίν γ' ἐγὼ σφίσιν
ἔδειξα κράσεις ἠπίων ἀκεσμάτων,
αἷς τὰς ἁπάσας ἐξαμύνονται νόσους.
τρόπους τε πολλοὺς μαντικῆς ἐστοίχισα,
κἄκρινα πρῶτος ἐξ ὀνειράτων ἃ χρὴ
ὕπαρ γενέσθαι, κληδόνας τε δυσκρίτους
ἐγνώρισ' αὐτοῖς· ἐνοδίους τε συμβόλους
γαμψωνύχων τε πτῆσιν οἰωνῶν σκεθρῶς
διώρισ', οἵτινές τε δεξιοὶ φύσιν
εὐωνύμους τε, καὶ δίαιταν ἥντινα
ἔχουσ' ἕκαστοι, καὶ πρὸς ἀλλήλους τίνες
ἔχθραι τε καὶ στέργηθρα καὶ συνεδρίαι·
σπλάγχνων τε λειότητα, καὶ χροιὰν τίνα
ἔχοντ' ἂν εἴη δαίμοσιν πρὸς ἡδονὴν,
χολῆς λοβοῦ τε ποικίλην εὐμορφίαν,
κνίσῃ τε κῶλα συγκαλυπτὰ καὶ μακρὰν
ὀσφῦν πυρώσας δυστέκμαρτον ἐς τέχνην
ὤδωσα θνητούς· καὶ φλογωπὰ σήματα
ἐξωμμάτωσα, πρόσθεν ὄντ' ἐπάργεμα.
τοιαῦτα μὲν δὴ ταῦτ'· ἔνερθε δὲ χθονὸς
κεκρυμμέν' ἀνθρώποισιν ὠφελήματα,
χαλκὸν, σίδηρον, ἄργυρον, χρυσόν τε τίς
φήσειεν ἂν πάροιθεν ἐξευρεῖν ἐμοῦ;
οὐδείς, σάφ' οἶδα, μὴ μάτην φλῦσαι θέλων.
βραχεῖ δὲ μύθῳ πάντα συλλήβδην μάθε,
πᾶσαι τέχναι βροτοῖσιν ἐκ Προμηθέως.

(β). μηδάμ' ὁ πάντα νέμων
θεῖτ' ἐμᾷ γνώμᾳ κράτος ἀντίπαλον Ζεὺς,
μηδ' ἐλινύσαιμι θεοὺς ὁσίαις θοίναις ποτινισσομένα
βουφόνοις, παρ' Ὠκεανοῦ πατρὸς ἄσβεστον πόρον,
μηδ' ἀλίτοιμι λόγοις·
ἀλλά μοι τόδ' ἐμμένοι
καὶ μήποτ' ἐκτακείη·
ἡδύ τι θαρσαλέαις
τὸν μακρὸν τείνειν βίον ἐλπίσι, φαναῖς
θυμὸν ἀλδαίνουσαν ἐν εὐφροσύναις. φρίσσω δέ σε δερκομένα
μυρίοις μόχθοις διακναιόμενον – – ⏑ –.
Ζῆνα γὰρ οὐ τρομέων
αὐτόνῳ γνώμᾳ σέβει
θνατοὺς ἄγαν, Προμηθεῦ.

Appendix, No. 2.

Scholarship Examinations.

φέρ' ὅπως ἄχαρις χάρις, ὦ φίλος, εἰπὲ, ποῦ τίς ἀλκά;
τίς ἐφαμερίων ἄρηξις; οὐδ' ἐδέρχθης
ὀλιγοδρανίαν ἄκικυν,
ἰσόνειρον, ᾧ τὸ φωτῶν
ἀλαὸν γένος ἐμπεποδισμένον; οὔποτε θνατῶν
τὰν Διὸς ἁρμονίαν ἀνδρῶν παρεξίασι βουλαί.
ἔμαθον τάδε σὰς προσιδοῦσ' ὁλοὰς τύχας, Προμηθεῦ.
τὸ διαμφίδιον δέ μοι μέλος προσέπτα
τόδ' ἐκεῖνό θ' ὅτ' ἀμφὶ λουτρὰ
καὶ λέχος σὸν ὑμεναίουν
ἰότατι γάμων, ὅτε τὰν ὁμοπάτριον ἔδνοις
ἄγαγες Ἡσιόναν πιθὼν δάμαρτα κοινόλεκτρον.

(γ). Write out the following lines in Greek, filling in the blank spaces; and make remarks on any idiomatic phrase or phrases that may occur;

Τί δῆτ' ἐμοὶ ζῆν . . ., ἀλλ' οὐκ . . .
ἐρρίψ' ἐμαυτὴν τῆσδ' . . . . . .,
ὅπως πέδῳ σκίψασα, τῶν . . . . . .
. . . . .; . . . . . εἰσάπαξ θανεῖν,
ἢ τὰς . . . . . .

(δ). Give the English of λεωργός, σταθευτός, ἑλινύω, μασχαλιστήρ, ποταίνιος, θεμερῶπις, ἀτέραμνος, ἐπίχειρα, φρενόω, ἰπόω, ἀήσυρος, ἐργάνη, κνώδαλον, ἀχέτας or ἠχέτης, ἀλύσκω, κηδεῦσαι καθ' ἑαυτόν, Ἀδράστεια, δαιταλεὺς πανήμερος.

Xenophon—*Memorabilia.*

Translate any one of the following extracts:—

(α). Θυσίας δὲ θύων μικρὰς ἀπὸ μικρῶν οὐδὲν ἡγεῖτο μειοῦσθαι τῶν ἀπὸ πολλῶν καὶ μεγάλων πολλὰ καὶ μεγάλα θυόντων. οὔτε γὰρ τοῖς θεοῖς ἔφη καλῶς ἔχειν, εἰ ταῖς μεγάλαις θυσίαις μᾶλλον ἢ ταῖς μικραῖς ἔχαιρον· πολλάκις γὰρ ἂν αὐτοῖς τὰ παρὰ τῶν πονηρῶν μᾶλλον ἢ τὰ παρὰ τῶν χρηστῶν εἶναι κεχαρισμένα· οὔτ' ἂν τοῖς ἀνθρώποις ἄξιον εἶναι ζῆν, εἰ τὰ παρὰ τῶν πονηρῶν μᾶλλον ἦν κεχαρισμένα τοῖς θεοῖς ἢ τα παρὰ τῶν χρηστῶν· ἀλλ' ἐνόμιζε τοὺς θεοὺς ταῖς παρὰ τῶν εὐσεβεστάτων τιμαῖς μάλιστα χαίρειν. ἐπαινέτης δ' ἦν καὶ τοῦ ἔπους τούτου,

Κἀδ δύναμιν δ' ἔρδειν ἱέρ' ἀθανάτοισι θεοῖσι.

καὶ πρὸς φίλους δὲ καὶ ξένους καὶ πρὸς τὴν ἄλλην δίαιταν καλὴν ἔφη παραίνεσιν εἶναι τὴν Κἀδ δύναμιν ἔρδειν. Εἰ δέ τι δόξειεν αὐτῷ σημαίνεσθαι παρὰ τῶν θεῶν, ἧττον ἂν ἐπείσθη παρὰ τὰ σημαινόμενα ποιῆσαι ἢ εἴ τις αὐτὸν ἔπειθεν ὁδοῦ λαβεῖν ἡγεμόνα τυφλὸν καὶ μὴ εἰδότα τὴν ὁδὸν ἀντὶ βλέποντος καὶ εἰδότος· καὶ τῶν ἄλλων δὲ μωρίαν κατηγόρει, οἵτινες παρὰ τὰ ὑπὸ τῶν θεῶν σημαινόμενα ποιοῦσί τι, φυλαττόμενοι τὴν παρὰ τοῖς ἀνθρώποις ἀδοξίαν. αὐτὸς δὲ πάντα τἀνθρώπινα ὑπερεώρα πρὸς τὴν παρὰ τῶν θεῶν ξυμβουλίαν.

(β). Καὶ ἐκ τούτων ἀνευρίσκουσιν Ἀρχέδημον, πάνυ μὲν ἱκανὸν εἰπεῖν τε καὶ πρᾶξαι, πένητα δέ. οὐ γὰρ ἦν οἷος ἀπὸ παντὸς κερδαίνειν, ἀλλὰ φιλόχρηστός τε καὶ εὐφυέστερος ὢν ἀπὸ τῶν συκοφαντῶν λαμβάνειν. τούτῳ οὖν ὁ Κρίτων, ὁπότε συγκομίζοι ἢ σῖτον ἢ ἔλαιον ἢ οἶνον ἢ ἔρια ἢ ἄλλο τι τῶν ἐν ἀγρῷ γιγνομένων χρησίμων πρὸς τὸν βίον, ἀφελὼν ἔδωκε· καὶ ὁπότε θύοι, ἐκάλει, καὶ τὰ τοιαῦτα πάντα ἐπεμελεῖτο. Νομίσας δὲ ὁ Ἀρχέδημος

ἀποστροφὴν οἱ τὸν Κρίτωνος οἶκον μάλα περιεῖπεν αὐτόν. καὶ εὐθὺς τῶν συκοφαντούντων τὸν Κρίτωνα ἀνευρίσκει πολλὰ μὲν ἀδικήματα, πολλοὺς δ' ἐχθρούς· καὶ αὐτῶν τινα προσεκαλέσατο εἰς δίκην δημοσίαν, ἐν ᾗ αὐτὸν ἔδει κριθῆναι ὅ,τι δεῖ παθεῖν ἢ ἀποτῖσαι. Ὁ δὲ συνειδὼς αὐτῷ πολλὰ καὶ πονηρὰ πάντ' ἐποίει, ὥστε ἀπαλλαγῆναι τοῦ Ἀρχεδήμου. ὁ δὲ Ἀρχέδημος οὐκ ἀπηλλάττετο, ἕως τόν τε Κρίτωνα ἀφῆκε καὶ αὐτῷ χρήματα ἔδωκεν. Ἐπεὶ δὲ τοῦτό τε καὶ ἄλλα τοιαῦτα ὁ Ἀρχέδημος διεπράξατο, ἤδη τότε, ὥσπερ ὅταν νομεὺς ἀγαθὸν κύνα ἔχῃ, καὶ οἱ ἄλλοι νομεῖς βούλονται πλησίον αὐτοῦ τὰς ἀγέλας ἱστάναι, ἵνα τοῦ κυνὸς ἀπολαύωσιν, οὕτω καὶ τοῦ Κρίτωνος πολλοὶ τῶν φίλων ἐδέοντο καὶ σφίσι παρέχειν φύλακα τὸν Ἀρχέδημον. Ὁ δὲ Ἀρχέδημος τῷ Κρίτωνι ἡδέως ἐχαρίζετο, καὶ οὐχ ὅτι μόνος ὁ Κρίτων ἐν ἡσυχίᾳ ἦν, ἀλλὰ καὶ οἱ φίλοι αὐτοῦ. εἰ δέ τις αὐτῷ τούτων οἷς ἀπήχθετο ὑνειδίζοι, ὡς ὑπὸ Κρίτωνος ὠφελούμενος κολακεύοι αὐτόν, Πότερον οὖν, ἔφη ὁ Ἀρχέδημος, αἰσχρόν ἐστιν εὐεργετούμενον ὑπὸ χρηστῶν ἀνθρώπων καὶ ἀντευεργετοῦντα τοὺς μὲν τοιούτους φίλους ποιεῖσθαι, τοῖς δὲ πονηροῖς διαφέρεσθαι, ἢ τοὺς μὲν καλοὺς κἀγαθοὺς ἀδικεῖν πειρώμενον ἐχθροὺς ποιεῖσθαι, τοῖς δὲ πονηροῖς συνεργοῦντα πειρᾶσθαι φίλους ποιεῖσθαι καὶ χρῆσθαι τούτοις ἀντ' ἐκείνων; ἐκ δὲ τούτου εἷς τε τῶν Κρίτωνος φίλων Ἀρχέδημος ἦν καὶ ὑπὸ τῶν ἄλλων Κρίτωνος φίλων ἐτιμᾶτο.

(γ). Καὶ ἔλεγε δὲ οὕτω καὶ πρὸς ἄλλους μὲν πολλάκις, οἶδα δέ ποτε αὐτὸν καὶ πρὸς Ἱππίαν τὸν Ἠλεῖον περὶ τοῦ δικαίου τοιάδε διαλεχθέντα. διὰ χρόνου γὰρ ἀφικόμενος ὁ Ἱππίας Ἀθήναζε παρεγένετο τῷ Σωκράτει, λέγοντι πρός τινας ὡς θαυμαστὸν εἴη τό, εἰ μέν τις βούλοιτο σκυτέα διδάξασθαί τινα ἢ τέκτονα ἢ χαλκέα ἢ ἱππέα, μὴ ἀπορεῖν ὅποι ἂν πέμψας τούτου τύχοι· φασὶ δέ τινες καὶ ἵππον καὶ βοῦν τῷ βουλομένῳ δικαίους ποιήσασθαι πάντα μεστὰ εἶναι τῶν διδαξόντων· ἐὰν δέ τις βούληται ἢ αὐτὸς μαθεῖν τὸ δίκαιον ἢ υἱὸν ἢ οἰκέτην διδάξασθαι, μὴ εἰδέναι ὅποι ἂν ἐλθὼν τύχοι τούτου. Καὶ ὁ μὲν Ἱππίας ἀκούσας ταῦτα ὥσπερ ἐπισκώπτων αὐτόν, Ἔτι γὰρ σύ, ἔφη, ὦ Σώκρατες, ἐκεῖνα τὰ αὐτὰ λέγεις ἃ ἐγὼ πάλαι ποτέ σου ἤκουσα; καὶ ὁ Σωκράτης, Ὁ δέ γε τούτου δεινότερον, ἔφη, ὦ Ἱππία, οὐ μόνον ἀεὶ τὰ αὐτὰ λέγω, ἀλλὰ καὶ περὶ τῶν αὐτῶν. σὺ δ' ἴσως διὰ τὸ πολυμαθὴς εἶναι περὶ τῶν αὐτῶν οὐδέποτε τὰ αὐτὰ λέγεις. Ἀμέλει, ἔφη, πειρῶμαι καινόν τι λέγειν ἀεί. Πότερον, ἔφη, καὶ περὶ ὧν ἐπίστασαι; οἷον περὶ γραμμάτων ἐάν τις ἔρηταί σε, πόσα καὶ ποῖα Σωκράτους ἐστίν, ἄλλα μὲν πρότερον, ἄλλα δὲ νῦν πειρᾷ λέγειν; ἢ περὶ ἀριθμῶν τοῖς ἐρωτῶσιν εἰ τὰ δὶς πέντε δέκα ἐστίν, οὐ τὰ αὐτὰ νῦν ἃ καὶ πρότερον ἀποκρίνῃ; Περὶ μὲν τούτων, ἔφη, ὦ Σώκρατες, ὥσπερ σύ, καὶ ἐγὼ ἀεὶ τὰ αὐτὰ λέγω. περὶ μέντοι τοῦ δικαίου πάνυ οἶμαι νῦν ἔχειν εἰπεῖν πρὸς ἃ οὔτε σὺ οὔτ' ἄν ἄλλος οὐδεὶς δύναιτ' ἀντειπεῖν. Νὴ τὴν Ἥραν, ἔφη, μέγα λέγεις ἀγαθὸν εὑρηκέναι, εἰ παύσονται μὲν οἱ δικασταὶ δίχα ψηφιζόμενοι, παύσονται δὲ οἱ πολῖται περὶ τῶν δικαίων ἀντιλέγοντές τε καὶ ἀντιδικοῦντες καὶ στασιάζοντες, παύσονται δὲ αἱ πόλεις διαφερόμεναι περὶ τῶν δικαίων καὶ πολεμοῦσαι. καὶ ἐγὼ μὲν οὐκ οἶδ' ὅπως ἂν ἀπολειφθείην σου πρὸ τοῦ ἀκοῦσαι τηλικοῦτον ἀγαθὸν εὑρηκότος. Ἀλλὰ μὰ Δί', ἔφη, οὐκ ἀκούσῃ, πρίν γ' ἂν αὐτὸς ἀποφήνῃ ὅ,τι νομίζεις τὸ δίκαιον εἶναι. ἀρκεῖ γὰρ ὅτι τῶν ἄλλων καταγελᾷς ἐρωτῶν μὲν καὶ ἐλέγχων πάντας, αὐτὸς δ' οὐδενὶ θέλων ὑπέχειν λόγον οὐδὲ γνώμην ἀποφαίνεσθαι περὶ οὐδενός.

Appendix, No. 2.

Scholarship Examinations.

(δ). Distinguish between *βασιλεία, τυραννίς, ἀριστοκρατεία* and *δημοκρατία*, according to Socrates.

(ε). Give some account of Aristippus and his moral principles; and of Anaxagoras and his doctrines.

(ζ). In what trait of character did the Athenians, according to Socrates, excel all the rest of the Greeks? To what passage or passages of what author would you refer for the best description of Athenian character?

(η). Give the etymology, and trace the meanings of *περίεργος, φρενοῦν, εὐήθης, κινδυνεύω, φαυλίζω, παραφρονεῖν.*

1. What was the origin, and what the functions of the Ἐκκλησία, the Βουλή and the Ἡ ἐν Ἀρείῳ πάγῳ Βουλή?

2. Mention the principal epochs of Greek colonization; the states most successful in colonizing; the names of their most famous colonies; and the chief distinctions between a Greek and Roman colony.

3. Arrange in chronological order the following names of battles: Cunaxa, Mycale, Leuctra, Ægospotami, Coronea, Platæa, Chæronæa, Salamis, and Mantinæa.

4. Give the duration of Theban supremacy in Greece; the cause or causes of its growth and decay.

5. State points of resemblance and difference between the Archons of Athens and the Consuls of Rome; and between the Ephors of Sparta and the Tribunes of Rome.

6. Give the chief coast towns of Sicily; starting with any one, and going continuously round the island.

7. Give the birthplaces—assigning their position—of Alexander the Great, Alcæus, Heracleitus, Diogenes, Herodotus, Thales, and Democritus; and arrange the names in chronological order.

8. Give the modern names of Zacynthus, Ithaca, cape Tænarus, the river Strymon, the Sinus Maliacus, and Mons Cydene.

HERODOTUS, Book I.

(α). Translate:—

Ἐτετείχιστο μέν νυν ἡ Βαβυλὼν τρόπῳ τοιῷδε. ἔστι δὲ δύο φάρσεα τῆς πόλιος. τὸ γὰρ μέσον αὐτῆς ποταμὸς διέργει, τῷ οὔνομά ἐστι Εὐφρήτης· ῥέει δὲ ἐξ Ἀρμενίων, ἐὼν μέγας καὶ βαθὺς καὶ ταχύς· ἐξίει δὲ οὗτος ἐς τὴν Ἐρυθρὴν θάλασσαν. τὸ ὦν δὴ τεῖχος ἑκάτερον τοὺς ἀγκῶνας ἐς τὸν ποταμὸν ἐλήλαται· τὸ δὲ ἀπὸ τούτου αἱ ἐπικαμπαὶ παρὰ χεῖλος ἑκάτερον τοῦ ποταμοῦ αἰμασιὴ πλίνθων ὀπτέων παρατείνει. τὸ δὲ ἄστυ αὐτὸ ἐὸν πλῆρες οἰκιέων τριωρόφων τε καὶ τετρωρόφων κατατέτμηται τὰς ὁδοὺς ἰθείας, τάς τε ἄλλας καὶ τὰς ἐπικαρσίας τὰς ἐπὶ τὸν ποταμὸν ἐχούσας. κατὰ δὴ ὦν ἑκάστην ὁδὸν ἐν τῇ αἰμασιῇ τῇ παρὰ τὸν ποταμὸν πυλίδες ἐπῆσαν, ὅσαι περ αἱ λαῦραι, τοσαῦται ἀριθμόν. ἦσαν δὲ καὶ αὗται χάλκεαι, φέρουσαι καὶ αὐταὶ ἐς αὐτὸν τὸν ποταμόν.

(β). Translate:—

Νόμοι μὲν δὴ τοῖσι Βαβυλωνίοισι οὗτοι κατεστέασι, εἰσὶ δὲ αὐτῶν πατριαὶ τρεῖς, αἳ οὐδὲν ἄλλο σιτέονται εἰ μὴ ἰχθῦς μοῦνον, τοὺς ἐπεί τε ἂν θηρεύσαντες αὐήνωσι πρὸς ἥλιον, ποιεῦσι τάδε· ἐσβάλλουσι ἐς ὅλμον καὶ λεήναντες ὑπέροισι σῶσι δια σινδόνος· καὶ ὃς μὲν ἂν βούληται αὐτῶν, ἄτε μάζαν μαξάμενος ἔχει, ὁ δὲ ἄρτου τρόπον ὀπτήσας.

(γ). What was Herodotus' conception of a history? From what sources did he borrow in the compilation of his own? *Appendix, No. 2.*

(δ). State the main religious conceptions of Herodotus? Is there anything in this book to suggest scepticism regarding the oracles? Scholarship Examinations.

(ε). Give a brief account of Miletus and Phocæa, and of their colonies.

(ζ). Can you refer to any anachronisms in this book?

(θ). Can you refer to any passage that throws light on the date up to which Herodotus continued writing his history?

(ι). What notices are there in this book of intercourse between Greece and Phœnicia?

(κ). Explain, and give the context of, the following:—

1. *ἀνακῶς ἔχειν τῶν πορθμέων.*
2. *ἐπικίρναται γὰρ ὑπὸ Δελφῶν θεοφανίοισι.*
3. *ἄνευ γὰρ ἀναγκαίης ἰσχυρῆς συμβάσιες ἰσχυραὶ οὐκ ἐθέλουσι συμμένειν,*
4. *λεώφοροι πύλαι.*
5. *ὡς μὲν ἐμοὶ δοκέειν ὅτι οὐκ ἀνθρωποφυέας ἐνόμισαν τοὺς θεούς, κάταπερ οἱ Ἕλληνες, εἶναι.*
6. *ἀπεστράφατο γὰρ τοὺς ἐμβόλους.*

Thucydides, Book I.

To be translated into English:—

(α). *Τὰ δ' ἔργα τῶν πραχθέντων ἐν τῷ πολέμῳ οὐκ ἐκ τοῦ παρατυχόντος πυνθανόμενος ἠξίωσα γράφειν οὐδ' ὡς ἐμοὶ ἐδόκει, ἀλλ' οἷς τε αὐτὸς παρῆν καὶ παρὰ τῶν ἄλλων ὅσον δυνατὸν ἀκριβείᾳ περὶ ἑκάστου ἐπεξελθών. ἐπιπόνως δὲ εὑρίσκετο, διότι οἱ παρόντες τοῖς ἔργοις ἑκάστοις οὐ ταὐτὰ περὶ τῶν αὐτῶν ἔλεγον, ἀλλ' ὡς ἑκατέρων τις εὐνοίας ἢ μνήμης ἔχοι. καὶ ἐς μὲν ἀκρόασιν ἴσως τὸ μὴ μυθῶδες αὐτῶν ἀτερπέστερον φανεῖται· ὅσοι δὲ βουλήσονται τῶν τε γενομένων τὸ σαφὲς σκοπεῖν καὶ τῶν μελλόντων ποτὲ αὖθις κατὰ τὸ ἀνθρώπειον τοιούτων καὶ παραπλησίων ἔσεσθαι, ὠφέλιμα κρίνειν αὐτὰ ἀρκούντως ἕξει. κτῆμά τε ἐς ἀεὶ μᾶλλον ἢ ἀγώνισμα ἐς τὸ παραχρῆμα ἀκούειν ξύγκειται.*

(β). *Βουλεύεσθε οὖν βραδέως ὡς οὐ περὶ βραχέων, καὶ μὴ ἀλλοτρίαις γνώμαις καὶ ἐγκλήμασι πεισθέντες οἰκεῖον πόνον προσθῆσθε. τοῦ δὲ πολέμου τὸν παράλογον, ὅσος ἐστὶ, πρὶν ἐν αὐτῷ γενέσθαι προδιάγνωτε· μηκυνόμενος γὰρ ἐς τύχας φιλεῖ τὰ πολλὰ περιίστασθαι, ὧν ἴσον τε ἀπέχομεν καὶ ὁποτέρους ἔσται ἐν ἀδήλῳ κινδυνεύεται. ἰόντες τε οἱ ἄνθρωποι ἐς τοὺς πολέμους τῶν ἔργων πρότερον ἔχονται, ἃ χρὴν ὕστερον δρᾶν, κακοπαθοῦντες δὲ ἤδη τῶν λόγων ἅπτονται. ἡμεῖς δὲ ἔν οὐδεμιᾷ πω τοιαύτῃ ἁμαρτίᾳ ὄντες οὔτ' αὐτοὶ οὔθ' ὑμᾶς ὁρῶντες λέγομεν ὑμῖν, ἕως ἔτι αὐθαίρετος ἀμφοτέροις ἡ εὐβουλία, σπονδὰς μὴ λύειν μηδὲ παραβαίνειν τοὺς ὅρκους, τὰ δὲ διάφορα δίκῃ λύεσθαι κατὰ τὴν ξυνθήκην· ἢ θεοὺς τοὺς ὁρκίους μάρτυρας ποιούμενοι πειρασόμεθα ἀμύνεσθαι πολέμου ἄρχοντας ταύτῃ ᾗ ἂν ὑφηγῆσθε.*

(γ). *Ὑμεῖς γοῦν, ὦ Λακεδαιμόνιοι, τὰς ἐν τῇ Πελοποννήσῳ πόλεις ἐπὶ τὸ ὑμῖν ὠφέλιμον καταστησάμενοι ἐξηγεῖσθε· καὶ εἰ τότε ὑπομείναντες διὰ παντὸς ἀπήχθησθε ἐν τῇ ἡγεμονίᾳ, ὥσπερ ἡμεῖς, εὖ ἴσμεν μὴ ἂν ἧσσον ὑμᾶς λυπηροὺς γενομένους τοῖς ξυμμάχοις καὶ ἀναγκασθέντας ἂν ἡ ἄρχειν ἐγκρα-*

Appendix, No. 2.

Scholarship Examinations.

τῶς ἢ αὐτοὺς κινδυνεύειν. οὕτως οὐδ' ἡμεῖς θαυμαστὸν οὐδὲν πεποιήκαμεν οὐδ' ἀπὸ τοῦ ἀνθρωπείου τρόπου, εἰ ἀρχήν τε διδομένην ἐδεξάμεθα καὶ ταύτην μὴ ἀνείμεν, ὑπὸ τῶν μεγίστων νικηθέντες, τιμῆς καὶ δέους καὶ ὠφελίας, οὐδ' αὖ πρῶτοι τοῦ τοιούτου ὑπάρξαντες, ἀλλ' ἀεὶ καθεστῶτος τὸν ἥσσω ὑπὸ τοῦ δυνατωτέρου κατείργεσθαι, ἄξιοί τε ἅμα νομίζοντες εἶναι καὶ ὑμῖν δοκοῦντες, μέχρι οὗ τὰ ξυμφέροντα λογιζόμενοι τῷ δικαίῳ λόγῳ νῦν χρῆσθε, ὃν οὐδείς πω παρατυχὸν ἰσχύϊ τι κτήσασθαι προθεὶς τοῦ μὴ πλέον ἔχειν ἀπετράπετο. ἐπαινεῖσθαί τε ἄξιοι, οἵτινες χρησάμενοι τῇ ἀνθρωπείᾳ φύσει ὥστε ἑτέρων ἄρχειν δικαιότεροι ἢ κατὰ τὴν ὑπάρχουσαν δύναμιν γεγένηνται. ἄλλους γ' ἂν οὖν οἰόμεθα τὰ ἡμέτερα λαβόντας δεῖξαι ἂν μάλιστα εἴ τι μετριάζομεν, ἡμῖν δὲ καὶ ἐκ τοῦ ἐπιεικοῦς ἀδοξία τὸ πλέον ἢ ἔπαινος οὐκ εἰκότως περιέστη.

(δ). Point out such expressions in the above passages as you may consider peculiarly Thucydidean; and render them in what you would consider as more simple and ordinary Greek.

(ε). Enumerate the respective allies or subjects of Athens and Lacedæmon at the outbreak of the war.

(ζ). Epitomise the arguments employed respectively by the envoys of Corcyra and Corinth at Athens before the commencement of the war.

GREEK PROSE COMPOSITION.

Translate after the style of Herodotus:—

Ninus, the Assyrian, had an ocean of gold and other riches more than the sand in the Caspian sea. He never saw the stars, and perhaps he never desired it; he never stirred up the holy fire among the Magi, nor touched his god with the sacred rod according to the laws; he never offered sacrifice, nor worshipped the Deity, nor administered justice, nor spake to his people, nor numbered them; but he was most valiant to eat and drink, and having mingled his wines he threw the rest upon the stones. This man is dead: behold his sepulchre; and now hear where Ninus is. Sometimes I was Ninus, and drew the breath of a living man; but now am nothing but clay. I have nothing, but what I did eat, and what I served to myself in lust, that was and is all my portion.

After the style of Thucydides:—

As the armies approached, the two generals went from rank to rank encouraging their men, exciting their hopes, and allaying their fears. Pompey represented to his men that the glorious occasion, which they had long besought him to grant, was before them; "and, indeed," cried he, "what advantages could you wish over an enemy that you are not now possessed of? Your numbers, your vigour, a late victory, all assure a speedy and an easy conquest of those harassed and broken troops, composed of men worn out with age and impressed with the terrors of a recent defeat; but there is a still stronger protection than the superiority of our strength,—the justice of our cause."

LATIN.—*Examiner, R. B. Bagley,* M.A.

Translate into English, explaining anything that seems to you to require explanation :—

TERENCE—*Andria,* Act II., Sc. ii.

Davos—Charinus.—Pamphilus.

Da. Di boni, boni quid porto? sed ubi inueniam Pamphilum,
Vt metum in quo nunc est adimam atque expleam animum gaudio?
Ch. Laetus est nescio quid. *Pa.* Nil est: non dum haec resciuit mala.
Da. Quem ego nunc credo, si iam audierit sibi paratas nuptias,
Ch. Audin tu illum? *Da.* toto me oppido exanimatum quaerere.
Sed ubi quaeram aut quo nunc primum intendam? *Ch.* Cessas adloqui?'
Da. Habeo. *Pa.* Daue, ades, resiste. *Da.* Quis homost, qui me . .? o Pamphile,
Te ipsum quaero. euge Charine: ambo opportune: uos uolo.
Pa. Daue, perii. *Da.* Quin tu hoc audi. *Pa.* Interii. *Da.* Quid timeas scio.
Ch. Mea quidem hercle certe in dubio uitast. *Da.* Et quid tu, scio.
Pa. Nuptiae mi. *Da.* Etsi scio? *Pa.* hodie. *Da.* Obtundis tam etsi intellego?
Id paues, ne ducas tu illam: tu autem, ut ducas. *Ch.* Rem tenes.
Pa. Istuc ipsum. *Da.* Atqui istuc ipsum nil periclist: me uide.
Pa. Obsecro te, quam primum hoc me libera miserum metu. *Da.* Hem,
Libero: uxorem tibi non dat iam Chrèmes. *Pa.* Qui scis? *Da.* Scio.
Tuus pater modo hic me prendit: ait tibi uxorem dare
Hodie, item alia multa, quae nunc non est narrandi locus.
Continuo ad te properans percurro ad forum, ut dicam tibi haec.
Vbi te non inuenio, ibi ascendo in quendam excelsum locum
Circumspicio; nusquam. forte ibi huius uideo Byrriam;
Rogo: negat uidisse. mihi molestum. quid agam cogito.
Redeunti interea ex ipsa re mi incidit suspicio. 'hem,
Paululum obsoni: ipsus tristis: de improuiso nuptiae:
Non cohaerent.' *Pa.* Quorsum nam istuc? *Da.* Ego me continuo ad Chremem.
Quom illo aduenio, solitudo ante ostium: iam id gaudeo.
Ch. Recte dicis. *Pa.* Perge. *Da.* maneo: interea intro ire neminem.
Video, exire neminem: matronam nullam in aedibus,
Nil ornati, nil tumulti: accessi: intro aspexi. *Pa.* Scio.
Magnum signum. *Da.* Num uidentur conuenire haec nuptiis?
Pa. Non opinor, Daue. *Da.* 'Opinor' narras? non recte accipis.
Certa res est. etiam puerum inde abiens conueni Chremi:
Holera et pisciculos minutos ferre obolo in cœnam seni.
Ch. Liberatus sum hodie, Daue, tua opera. *Da.* Ac nullus quidem.
Ch. Quid ita? nempe huic prorsus illam non dat. *Da.* Ridiculum caput,
Quasi necessus sit, si huic non dat, te illam uxorem ducere:
Nisi uides, nisi senis amicos oras, ambis. *Ch.* Bene mones:
Ibo, etsi hercle saepe iam me spes haec frustratast. uale.

VIRGIL—*Georgics,* Book IV., 281–314.

Sed si quem proles subito defecerit omnis,
Nec, genus unde nouae stirpis reuocetur, habebit;
Tempus et Arcadii memoranda inventa magistri
Pandere, quoque modo caesis iam saepe iuvencis

Appendix, No. 2.

Scholarship Examinations.

Insincerus apes tulerit cruor. Altius omnem
Expediam prima repetens ab origine famam.
Nam qua Pellaei gens fortunata Canopi
Accolit effuso stagnantem flumine Nilum;
Et circum pictis vehitur sua rura faselis;
Quaque pharetratae vicinia Persidis urget,
Et diversa ruens septem discurrit in ora
Usque coloratis amnis devexus ab Indis,
Et viridem Aegyptum nigra foecundat arena;
Omnis in hac certam regio iacit arte salutem.
Exiguus primum atque ipsos contractus ad usus
Eligitur locus: hunc angustique imbrice tecti
Parietibusque premunt artis, et quatuor addunt
Quatuor a ventis obliqua luce fenestras.
Tum vitulus bima curvans iam cornua fronte
Quaeritur: huic geminae nares et spiritus oris
Multa reluctanti obstruitur, plagisque peremto
Tunsa per integram solvuntur viscera pellem.
Sic positum in clauso linquunt, et ramea costis
Subiiciunt fragmenta, thymum casiasque recentes.
Hoc geritur, Zephyris primum impellentibus undas,
Ante novis rubeant quam prata coloribus, ante
Garrula quam tignis nidum suspendat hirundo.
Interea teneris tepefactus in ossibus humor
Aestuat, et visenda modis animalia miris,
Trunca pedum primo, mox et stridentia pennis,
Miscentur, tenuemque magis magis aëra carpunt,
Donec, ut aestivis effusus nubibus imber,
Erupere, aut ut, nervo pulsante, sagittae,
Prima leves ineunt si quando proelia Parthi.

1. Explain the various meanings and constructions of the verb *convenire.*

Translate:—

ACTA LUDIS MEGALENSIBUS, M. FULVIO ET M. GLABRIONE AEDILIBUS CURULIBUS. EGERUNT L. AMBIVIUS TURPIO ET L. ATTILIUS PRAENESTINUS. MODOS FECIT FLACCUS CLAUDI FILIUS, TIBIIS PARIBUS, DEXTRIS ET SINISTRIS. ET EST TOTA GRAECA. EDITA M. MARCELLO ET CN. SULPICIO COSS.

3. Give some account of the *ludi Megalenses;* and state the other names by which they are known.

4. Explain the expression "tibiis paribus, dextris et sinistris."

5. Why is the epithet *Pellæi* applied to Canopus? What is the general name for a roof-tile in Latin; and what the difference between it and *imbrex?*

Translate into Latin elegiac verse:—

Through groves sequestered, dark and still,
Low vales and mossy cells among,
In silent paths the careless rill
With languid murmurs steals along.
Awhile it plays with circling sweep,
And, lingering, leaves its native plain;
Then pours impetuous down the steep,
And mingles with the boundless main.
Oh! let my years thus devious glide,
Through silent scenes obscurely calm;

Nor wealth nor strife pollute the tide,
Nor honour's sanguinary palm.
When labour tires and pleasure palls,
Still let the stream untroubled be,
As down the steep of age it falls,
And mingles with eternity.

Translate into English:—

(A).—CICERO—*Pro Milone*, XXIX.

Non timeo, iudices, ne odio mearum inimicitiarum inflammatus libentius haec in illum evomere videar quam verius. Etenim etsi praecipuum esse debebat, tamen ita communis erat omnium ille hostis, ut in communi odio paene aequaliter versaretur odium meum. Non potest dici satis, ne cogitari quidem, quantum in illo sceleris, quantum exitii fuerit. Quin sic attendite, iudices. Nempe haec est quaestio de interitu P. Clodii. Fingite animis—liberae sunt enim nostrae cogitationes et quae volunt sic intuentur, ut ea cernamus, quae non videmus,—fingite igitur cogitatione imaginem huius condicionis meae: si possim efficere ut Milonem absolvatis, sed ita, si P. Clodius revixerit .... Quid vultu extimuistis? quonam modo ille vos vivus adficeret, quos mortuus inani cogitatione percussit? Quid? si ipse Cn. Pompeius, qui ea virtute ac fortuna est, ut ea potuerit semper, quae nemo praeter illum, si is, inquam, potuisset aut quaestionem de morte P. Clodii ferre aut ipsum ab inferis excitare, utrum putatis potius facturum fuisse? Etiam si propter amicitiam vellet illum ab inferis evocare propter rem publicam non fecisset. Eius igitur mortis sedetis ultores, cuius vitam si putetis per vos restitui posse, nolitis, et de eius nece lata quaestio est, qui si eadem lege reviviscere posset, lata lex numquam esset. Huius ergo interfector si esset, in confitendo ab iisne poenam timeret, quos liberavisset? Graeci homines deorum honores tribuunt iis viris, qui tyrannos necaverunt. Quae ego vidi Athenis! quae aliis in urbibus Graeciae! quas res divinas talibus institutas viris! quos cantus, quae carmina! prope ad immortalitatis et religionem et memoriam consecrantur. Vos tanti conservatorem populi, tanti sceleris ultorem non modo honoribus nullis adficietis, sed etiam ad supplicium rapi patiemini? Confiteretur, confiteretur, inquam, si fecisset, et magno animo et libenter fecisse se libertatis omnium causa, quod esset ei non confitendum modo, verum etiam praedicandum.

(B.)—CICERO—*Letters to Atticus*, V., 9.

Actium venimus a. d. XVII. Kal. Quinct., quum quidem et Corcyrae et Sybotis muneribus tuis, quae et Areus et meus amicus Eutychides opipare et φιλοπροσηνέστατα nobis congesserant, epulati essemus Saliarem in modum. Actio maluimus iter facere pedibus, qui incommodissime navigassemus, et Leucatam flectere molestum videbatur. Actuariis autem minutis Patras accedere sine his impedimentis non satis visum est decorum. Ego, ut saepe tu me currentem hortatus es, cotidie meditor, praecipio meis, faciam denique, ut summa modestia et summa abstinentia munus hoc extraordinarium traducamus. Parthus velim quiescat et fortuna nos iuvet: nostra praestabimus. Tu, quaeso, quid agas, ubi quoque tempore futurus sis, quales res nostras Romae reliqueris, maxime de XX. et DCCC., cura ut sciamus. Id unis diligenter litteris datis, quae ad me utique perferantur, consequere. Illud tamen,

Appendix, No. 2.

Scholarship Examinations.

quoniam nunc abes, quum id non agitur, aderis autem ad tempus, ut mihi rescripsisti, memento curare per te et per omnes nostros, in primis per Hortensium, ut annus noster maneat suo statu, ne quid novi decernatur. Hoc tibi ita mando, ut dubitem an etiam te rogem, ut pugnes ne intercaletur. Sed non audeo tibi omnia onera imponere. Annum quidem utique teneto. Cicero meus, modestissimus et suavissimus puer, tibi salutem dicit. Dionysium semper equidem, ut scis, dilexi: sed cotidie pluris facio, et mehercule in primis, quod te amat nec tui mentionem intermitti sinit.

1. Distinguish between subjective and objective genitives, and with reference to this distinction state the two explanations that may be given of the phrase "odio inimicitiarum mearum." What was the original meaning of *hostis?* Distinguish between it and *inimicus.*

2. Give the etymological meaning of *quin,* and deduce from it the use of the word with the imperative and subjunctive moods.

3. Give some account of the tyrannicides referred to in (A), and of the honours paid to them.

4. In what year was Milo tried? Name the *lex* under which he was prosecuted and its proposer, and state how the form of procedure under it differed from the usual one. What is the legal meaning of *privilegium?*

5. Give some account of the chief events in Cicero's life during the period within which the letters to Atticus contained in Books III., IV., V., were written.

6. Give the modern names, and describe the situations of the places named in extract (B).

Translate into Latin prose:—

I have great hopes, O my judges, that it is infinitely to my advantage that I am sent to death. For it must of necessity be that one of these two things must be the consequence: death must take away all these senses, or convey me to another life. If all sense is to be taken away, and death is no more than that profound sleep without dreams in which we are sometimes buried, O heavens, how desirable it is to die! How many days do we know in life preferable to such a state? But if it be true that death is but a passage to places which they who lived before us do now inhabit; how much still happier is it to go from those who call themselves judges, to appear before those that are really such, and to meet men who have lived with justice and truth. Do you think it nothing to speak with Orpheus, Musæus, Homer, and Hesiod? I would, indeed, suffer many deaths to enjoy these things. With what particular delight should I talk to Palamedes, Ajax, and others, who, like me, have suffered by the iniquity of their judges! I should examine the wisdom of that great prince who carried such mighty forces against Troy, and argue with Sisyphus upon difficult points, as I have in conversation here, without being in danger of being condemned. But let not those among you who have pronounced me an innocent man be afraid of death. No harm can arrive at a good man whether dead or living; his affairs are under the direction of the gods. Nor will I believe the fate which is allotted to myself this day to have arrived by chance; nor have I aught to say against my judges or accusers, but that they thought they did me an injury. But I detain you too long; it is time that I retire to death, and you to your affairs of life: which of us has the better, is known to the gods, but to no mortal man.

ENGLISH.—*Examiner, Professor Moffett,* LL.D.

1. Define Language; and explain what is meant by an Analytic, Synthetic, and Homogeneous language.

2. What twofold error does Wiseman notice in the original method of the comparative study of languages?

3. Into what three periods does he divide the history of Ethnography? What three great results of the science does he point out?

4. Draw up a table of the Indo-European languages, with their subdivisions.

5. What languages spoken in Europe do not belong to the Indo-European family?

6. Give as complete a list as you can of the words which the English language has borrowed from the Celtic.

7. Examine the question—Whether, and how far, there is a Scandinavian element in the English language.

8. At what dates did the French language cease to be used in England—(1) in Acts of Parliament; (2) in the Law Courts; (3) in Schools?

9. Recount and explain the successive forms or stages which the English language has passed through.

10. Enumerate the principal literary works that were produced in England between the Norman Conquest and A.D. 1400; and give a particular account of any one of them.

11. Give six examples of words of Greek, Latin, and Saxon origin, respectively; and state how from each word you tell its origin.

12. What were the inflexions of English Nouns, Pronouns, and Verbs, in the time of Chaucer?

---

1. Define Literature, Poetry, and Epic Poem.

2. Name, with dates, those whom you consider to be the six greatest poets of England, and mention their principal works.

3. Write a short essay on the genius of Milton, and quote illustrative passages.

4. Quote some of Milton's allusions to the mediaeval Romances.

5. Distinguish between the Logical and the Grammatical analysis of a sentence.

6. Distinguish Simile and Metaphor. What cautions are to be observed in the use of metaphorical language?

7. Distinguish and illustrate Barbarism, Solecism, and Impropriety.

8. Explain what is meant by "Aureate terms."

9. What did Aristotle mean by "*frigidity* of style?"

10. Write a short essay on the best means of attaining Energy and Elegance of style.

SCIENCE SCHOLARSHIPS—SECOND YEAR.

MATHEMATICS.—*Examiner, Dr. Allman.*

1. The common chords of every pair of three intersecting circles meet in a point.

2. Eliminate ϕ from the equations;—

$$x=a+b\sin\phi, y=a\cot\phi+b\cos\phi.$$

3. The sides a, b, c, of a plane triangle are 18, 20, and 22, respectively. Find L $\tan\frac{A}{2}$, given log 2=·301030 and log 3=·477121.

Appendix, No. 2.

Scholarship Examinations.

4. If a straight line be perpendicular to each of two straight lines at the point of their intersection, it shall also be perpendicular to the plane which passes through them.

5. The three angles of a spherical triangle are together greater than two right angles and less than six right angles.

6. In a spherical triangle prove the formulæ—

$$\tan \tfrac{1}{2}(A+B)=\cot \tfrac{1}{2} C \frac{\cos \tfrac{1}{2}(a-b)}{\cos \tfrac{1}{2}(a+b)};$$

$$\tan \tfrac{1}{2}(A-B)=\cot \tfrac{1}{2} C \frac{\sin \tfrac{1}{2}(a-b)}{\sin \tfrac{1}{2}(a+b)}.$$

7. What is the polar equation of a straight line when the pole is on the line? What is the polar equation of a circle when the pole is at the centre of the circle?

8. Find the angle between two lines whose equations, with regard to rectangular co-ordinates, are given.

9. Give the equation of a circle—

(*a*) When the origin of co-ordinates is at the centre.
(*b*) When the centre lies on either of the axes of co-ordinates.
(*c*) When the axes are a diameter and perpendicular at its extremity.

10. The product of any number of successive integers is exactly divisible by that of the same number of terms of the numerical series.

11. Every equation has as many roots as it has dimensions, and no more.

12. Solve the equation $x^4+3x^3-7x^2-27x-18=0$, which has two roots of the form $+a$, $-a$.

---

1. Eliminate θ and ϕ from the equations:—

$a \sin^2\theta+b \cos^2\theta=c$, $b \sin^2\phi+a \cos^2\phi=d$, and $a \tan\theta=b \tan\phi$.

2. The lines joining the points of bisection of the opposite edges of a triangular pyramid intersect in a point.

3. Prove the formula $\sin \tfrac{1}{2}(A+B+C)=\dfrac{1+\cos a+\cos b+\cos c}{4 \cos \tfrac{1}{2}a \cos \tfrac{1}{2}b \cos \tfrac{1}{2}c}$.

4. Prove that the arcs drawn from the angles of a spherical triangle perpendicular to the opposite sides intersect in a point.

5. Find the condition that the three lines,

$$\frac{x}{a}+\frac{y}{b}=1,\ \frac{x}{a'}+\frac{y}{b'}=1,\ \frac{x}{a''}+\frac{y}{b''}=1,$$

shall pass through the same point.

6. Given the vertex and vertical angle of a triangle and the rectangle under the sides; if one extremity of the base describe a straight line or circle, find the locus described by the other extremity.

7. Find the locus of a point such that the square of its distance from a fixed point is equal to the rectangle under its distance from a fixed straight line and a line of given length.

8. Determine whether the equation $2x^4-12x^3+19x^2-6x+9=0$ has equal roots; and if so, find all the roots of the equation.

9. Prove that the second and fourth terms of the equation $x^4+p_1x^3+p_2x^2+p_3x+p_4=0$, can be removed by the same transformation if

$$8p_3=p_1(4p_2-p_1^2).$$

Literary Scholarships of the First Year.

Latin.—*Examiner, R. B. Bagley,* M.A.

Translate into English:

(A).—Virgil—*Æneid,* IV., 474–521.

Ergo ubi concepit furias, evicta dolore,
Decrevitque mori; tempus secum ipsa modumque
Exigit et, maestam dictis aggressa sororem,
Consilium vultu tegit ac spem fronte serenat:
" Inveni, germana, viam—gratare sorori,—
Quae mihi reddat eum, vel eo me solvat amantem.
Oceani finem iuxta solemque cadentem
Ultimus Aethiopum locus est, ubi maximus Atlas
Axem humero torquet stellis ardentibus aptum:
Hinc mihi Massylae gentis monstrata sacerdos,
Hesperidum templi custos, epulasque draconi
Quae dabat et sacros servabat in arbore ramos,
Spargens humida mella soporiferumque papaver.
Haec se carminibus promittit solvere mentes,
Quas velit, ast aliis duras immittere curas,
Sistere aquam fluviis et vertere sidera retro,
Nocturnosque ciet Manes; mugire videbis
Sub pedibus terram et descendere montibus ornos.
Testor, cara, deos et te, germana, tuumque
Dulce caput, magicas invitam accingier artes.
Tu secreta pyram tecto interiore sub auras
Erige, et arma, viri, thalamo quae fixa reliquit
Impius, exuviasque omnes lectumque iugalem,
Quo perii, superimponas: abolere nefandi
Cuncta viri monumenta iuvat, monstratque sacerdos."
Haec effata silet, pallor simul occupat ora.
Non tamen Anna novis praetexere funera sacris
Germanam credit, nec tantos mente furores
Concipit, aut graviora timet, quam morte Sychaei.
Ergo iussa parat.
At regina, pyra penetrali in sede sub auras
Erecta ingenti taedis atque ilice secta,
Intenditque locum sertis et fronde coronat
Funerea; super exuvias ensemque relictum
Effigiemque toro locat, haud ignara futuri.
Stant arae circum, et crines effusa sacerdos
Ter centum tonat ore deos, Erebumque Chaosque
Tergeminamque Hecaten, tria virginis ora Dianae.
Sparserat et latices simulatos fontis Averni;
Falcibus et messae ad lunam quaeruntur aënis
Pubentes herbae nigri cum lacte veneni;
Quaeritur et nascentis equi de fronte revulsus
Et matri praereptus amor.
Ipsa mola manibusque piis altaria iuxta,
Unum exuta pedem vinclis, in veste recincta,
Testatur moritura deos et conscia fati
Sidera; tum, si quod non aequo foedere amantes
Curae numen habet iustumque memorque, precatur,

Appendix, No. 2.

Scholarship Examinations.

(B).—HORACE—*Odes*, Book I., xxxvii.

Nunc est bibendum, nunc pede libero
Pulsanda tellus, nunc Saliaribus
Ornare pulvinar deorum
Tempus erat dapibus, sodales.

Antehac nefas depromere Caecubum
Cellis avitis, dum Capitolio
Regina dementes ruinas
Funus et imperio parabat

Contaminato cum grege turpium
Morbo virorum, quidlibet impotens
Sperare fortunaque dulci
Ebria. Sed minuit furorem

Vix una sospes navis ab ignibus,
Mentemque lymphatam Mareotico
Redegit in veros timores
Caesar ab Italia volantem

Remis adurgens, accipiter velut
Molles columbas aut leporem citus
Venator in campis nivalis
Haemoniae, daret ut catenis

Fatale monstrum: quae generosius
Perire quaerens nec muliebriter
Expavit ensem nec latentes
Classe cita reparavit oras;

Ausa et iacentem visere regiam
Vultu sereno, fortis et asperas
Tractare serpentes, ut atrum
Corpore combiberet venenum.

Deliberata morte ferocior:
Saevis Liburnis scilicet invidens
Privata deduci superbo
Non humilis mulier triumpho.

(C).—HORACE—*Epistles*, Book I., xx.

Vertumnum Ianumque, liber, spectare videris,
Scilicet ut prostes Sosiorum pumice mundus.
Odisti claves et grata sigilla pudico,
Paucis ostendi gemis et communia laudas,
Non ita nutritus. Fuge quo descendere gestis:
Non erit emisso reditus tibi. Quid miser egi?
Quid volui? dices, ubi quid te laeserit; et scis
In breve te cogi, quum plenus languet amator.
Quodsi non odio peccantis desipit augur,
Carus eris Romae, donec te deserat aetas;
Contrectatus ubi manibus sordescere vulgi
Coeperis, aut tineas pasces taciturnus inertes,
Aut fugies Uticam aut vinctus mitteris Ilerdam.

Ridebit monitor non exauditus, ut ille,
Qui male parentem in rupes protrusit asellum
Iratus: quis enim invitum servare laboret?
Hoc quoque te manet, ut pueros elementa docentem
Occupet extremis in vicis balba senectus.
Quum tibi sol tepidus plures admoverit aures,
Me libertino natum patre et in tenui re
Maiores pennas nido extendisse loqueris,
Ut quantum generi demas, virtutibus addas;
Me primis urbis belli placuisse domique,
Corporis exigui, praecanum, solibus aptum,
Irasci celerem, tamen ut placabilis essem.
Forte meum si quis te percontabitur aevum;
Me quater undenos sciat implevisse Decembres,
Collegam Lepidum quo duxit Lollius anno,

1. State the etymological meaning of the verb *exigere*, and deduce from it the various meanings that the verb assumes.
2. Explain the expression "Oceani finem juxta," and state the position of Oceanus in the geography of Homer.
3. There seems to be a difficulty in the use of the epithet *soporiferum* in verse 486 of extract (A), in connexion with the wakeful dragon, guardian of the golden apples. Could you give any of the attempts that have been made to explain away the difficulty?
4. Explain the construction of the clause "magicas invitam accingier artes;" also that of "praetexere funera sacris."
5. What is the metre of (B), and what are its laws? Judging from internal evidence, when should you suppose it was written?
6. Explain fully the following passages in (C):—

"Vertumnum Ianumque, liber, spectare videris,
Scilicet ut prostes Sosiorum pumice mundus."

"Forte meum si quis te percontabitur aevum,
Me quater undenos sciat implevisse Decembres,
Collegam Lepidum quo duxit Lollius anno."

Translate into English:—

SALLUST—*Jugurtha*, c. 31.

Multa me dehortantur a vobis, Quirites, ni studium reipublicae omnia superet; opes factionis, vostra patientia, ius nullum, ac maxume quod innocentiae plus periculi quam honoris est. Nam illa quidem piget dicere, his annis quindecim quam ludibrio fueritis superbiae paucorum, quam foede quamque inulti perierint vostri defensores, ut vobis animus ab ignavia atque socordia corruptus sit, qui ne nunc quidem, obnoxiis inimicis, exsurgitis, atque etiam nunc timetis eos, quibus decet terrori esse. Sed quamquam haec talia sunt, tamen obviam ire factionis potentiae animus subigit; certe ego libertatem, quae mihi a parente meo tradita est, experiar; verum id frustra an ob rem faciam, in vostra manu situm est, Quirites. Neque ego vos hortor, quod saepe maiores vostri fecere, ut contra iniurias armati eatis. Nihil vi, nihil secessione opus est; necesse est, suomet ipsi more praecipites eant. Occiso Tiberio Graccho, quem regnum parare aiebant, in plebem Romanam quaestiones graves habitae sunt. Post C. Gracchi et M.

Appendix, No. 2.

Scholarship Examinations.

Fulvii caedem item vestri ordinis multi mortales in carcere necati sunt; utriusque cladis non lex verum lubido eorum finem fecit. Sed sane fuerit regni paratio plebi sua restituere, quicquid sine sanguine civium ulcisci nequitur, iure factum sit. Superioribus annis taciti indignabamini acrarium expilari, reges et populos liberos paucis nobilibus vectigal pendere, penes eosdem et summam gloriam et maxumas divitias esse; tamen haec talia facinora impune suscepisse parum habuere. Itaque postremo leges, maiestas vostra, divina et humana omnia hostibus tradita sunt.

1. How does Livy explain the application of the word *Quirites* to the Roman people? Could you suggest any other explanation? Account for the expressions *populus Romanus Quirites*, and *populus Romanus Quiritium*.

2. What events in Roman history are alluded to in the expression "nihil secessione opus est?"

3. Give a short account of the agrarian law of Tib. Gracchus, and the date of his murder, with the circumstances that led to it.

4. Distinguish between *interficere*, *necare*, and *trucidare*; *ærarium* and *fiscus*; *vectigal* and *stipendium*.

CICERO—*De Senectute*, c. 13.

Saepe audivi a maioribus natu, qui se porro pueros a senibus audisse dicebant, mirari solitum C. Fabricium, quod, quum apud regem Pyrrhum legatus esset, audisset a Thessalo Cinea esse quemdam Athenis, qui se sapientem profitereter, eumque dicere omnia, quae faceremus, ad voluptatem esse referenda. Quod ex eo audientes M'. Curium et Ti. Coruncanium optare solitos ut id Samnitibus ipsique Pyrrho persuaderetur, quo facilius vinci possent, quum se voluptatibus dedissent. Vixerat M'. Curius, cum P. Decio, qui quinquennio ante eum consulem se pro re publica quarto consulatu devoverat: norat eumdem Fabricius, norat Coruncanius: qui quum ex sua vita tum ex eius, quem dico, Decii facto iudicabant esse profecto aliquid natura pulcrum atque praeclarum quod sua sponte peteretur quodque spreta et contempta voluptate optimus quisque sequeretur. Quorsum igitur tam multa de voluptate? Quia non modo vituperatio nulla, sed etiam summa laus senectutis est, quod ea voluptates nullas magno opere desiderat. Caret epulis exstructisque mensis et frequentibus poculis. Caret ergo etiam vinolentia et cruditate et insomniis. Sed si aliquid dandum est voluptati, quoniam eius blanditiis non facile obsistimus—divine enim Plato 'escam malorum' appellat 'voluptatem, quod ea videlicet homines capiantur ut pisces',—quamquam immoderatis epulis caret senectus, modicis tamen conviviis delectari potest. C. Duilium M. F., qui Poenos classe primus devicerat, redeuntem a coena senem saepe videbam puer, delectabatur crebro funali et tibicine, quae sibi nullo exemplo privatus sumpserat: tantum licentia dabat gloria.

1. What is the date of the consulship of C. Duilius? Give an account of his services, of the way in which they were commemorated, and of the honours conferred on him.

2. Who is the person alluded to in the words *quemdam Athenis*, &c.?

3. What is the passive construction of verbs that in the active take their object in the dative?

4. What is the peculiar use of the reflexive pronouns *sui*, *suus*, as distinguished from *is* or *ille*?

Retranslate into Latin prose:—

Cæsar said that on account of his respect for Divitiacus and the Aeduans, he would receive them under his protection, and spare them; but, because the state was of great influence among the Belgæ, and pre-eminent in the number of its population, he demanded 600 hostages. When these were delivered, and all the arms in the town collected, he went from that place into the territories of the Ambiani, who, without delay, surrendered themselves and all their possessions. Upon their territories bordered the Nervii, concerning whose character and customs, when Cæsar inquired, he received the following information:—That there was no access for merchants to them; that they suffered no wine or other things tending to luxury to be imported, because they thought that by their use the mind is enervated, and the courage impaired; that they were a savage people, and of great bravery; that they upbraided and condemned the rest of the Belgæ, who had surrendered themselves to the Roman people, and thrown aside their national courage; that they openly declared they would neither send ambassadors, nor accept any condition of peace.

GRECIAN AND ROMAN HISTORY.—*Examiner, Professor Moffett,* LL.D.

1. Write a brief sketch of the life and character—(1), of Pericles; (2), of Julius Cæsar; adding dates.

OUTLINES OF ANCIENT AND MODERN GEOGRAPHY.

1. Name the most eminent geographers among the Greeks and Romans. Which of them first raised geography to the dignity of a science?

2. Name the six most important subdivisions of the Peloponnesus.

3. Enumerate the subdivisions of Italy as instituted in the time of Augustus.

4. What localities of ancient Greece are distinguished in Roman history?

5. Describe the geographical positions of the following places, and state as fully as you can any circumstances of interest connected with them:—Cunaxa, Leuctra, Arbela, Zama, Munda, Arpinum.

6. Trace the courses of the Thames, the Shannon, and the Rhine, from their sources to the sea, mentioning the districts through which they flow, and the chief towns on their banks.

7. Where are the following places, to whom do they belong, and for what are any of them remarkable?—Valparaiso, Port-Mahon, Missolonghi, Natal, Raleigh, Bannockburn, Goa, Acapulco, Trent, Bosworth Field, Trieste, Astracan.

8. How many Cinque Ports are there? State their names and origin.

9. Give the Latin names of the Thames, the Seine, the Saône, the Severn, the Lake of Como, and of Lyons, Marseilles, Modena, Padua Rimini,

Appendix, No. 2.

Scholarship Examinations.

Science Scholarship of the First Year.

Mathematics.—*Examiner, Dr. Allman.*

1. Give the method of reducing a vulgar to an equivalent decimal fraction. Prove that the decimal must either terminate or recur. Reduce $\frac{1}{19}$ to an equivalent decimal.

2. Explain the process for finding the greatest common measure of two numbers. Find the greatest common measure of 235807 and 279851.

3. Extract the square roots of 76143076, of ·07929856, and of $\frac{5}{7}$.

4. The posts of an electric telegraph by the side of a railway are placed at intervals of 60 yards; find the rate per hour of a train which passes over 11 of these intervals in 25″. Also, find the least distance of two posts from each other which are an exact number of miles apart.

5. A quadrant of the meridian = 100000565·268 French metres and one metre = 39·37079 English inches. How many English yards are there in the quadrant?

6. Which is the best investment—the 3 per cents. at 86¼, 4 per cent. stock at 90½, or 5 per cent. stock at 102¾? Which is the worst?

7. If 1500 men have provisions for 287 days, and if, after 97 days, 250 men go away; find how long the remaining provisions will serve the number left.

8. Find the value of $\frac{\frac{5}{7} \text{ of } \frac{3}{10}+\frac{1}{4} \text{ of } \frac{6}{21}}{\frac{2}{3} \text{ of } \frac{9}{14}-\frac{5}{6} \text{ of } \frac{2}{15}}$; and of $\frac{4\frac{1}{7}-2\frac{1}{14}}{6\frac{1}{2}-2\frac{1}{7}}$.

---

1. Solve the following equations:—

$$\sqrt{(x+8)}-\sqrt{(x+3)}=\sqrt{x};$$

$$\frac{1}{x+a+b}+\frac{1}{x-a+b}+\frac{1}{x+a-b}+\frac{1}{x-a-b}=0.$$

2. Find the value of $uv-(1-u^2)^{\frac{1}{2}}(1-v^2)^{\frac{1}{2}}$, where $2u=x+\frac{1}{x}$ and $2v=y+\frac{1}{y}$.

3. A courier proceeds from one place, P, to another, Q, in 14 hours; a second courier starts at the same time as the first, from a place 10 miles behind P, and arrives at Q at the same time as the first courier. The second courier finds that he takes half an hour less than the first to accomplish 20 miles. Find the distance of Q from P.

4. Solve the simultaneous equations:—

$$x(x+y+z)=a^2,\ y(x+y+z)=b^2,\ z(x+y+z)=c^2.$$

5. Simplify the expression:—

$$\frac{1}{a(a-b)(a-c)}+\frac{1}{b(b-a)(b-c)}+\frac{1}{c(c-b)(c-a)}.$$

6. If two straight lines cut one another within a circle, the rectangle contained by the segments of one of them shall be equal to the rectangle contained by the segments of the other.

7. If the sides of two triangles, about each of their angles, be proportionals, the triangles shall be equiangular to one another, and shall have those angles equal which are opposite to the homologous sides.

8. In any triangle the square of the line bisecting any angle, internal or external, is equal to the difference between the rectangle under the

sides about that angle, and the rectangle under the segments of the side which the bisecting line meets. *Appendix, No. 2.*

9. If perpendiculars be drawn from any point on the circumference of a circle to the sides of an inscribed quadrilateral, the rectangle under the perpendiculars on two opposite sides is equal to the rectangle under the other two perpendiculars. Scholarship Examinations.

10. Describe a circle passing through two given points and touching a given circle.

11. Express the sine of an angle of a triangle in terms of the sides.

12. If $\cos\theta=\frac{a\cos\phi-b}{a-b\cos\phi}$, prove that $\frac{\tan\frac{\theta}{2}}{\sqrt{a+b}}=\frac{\tan\frac{\phi}{2}}{\sqrt{a-b}}$.

13. In any triangle ABC, prove that

$$\frac{\cot\frac{A}{2}+\cot\frac{B}{2}+\cot\frac{C}{2}}{\sec\frac{A}{2}\sec\frac{B}{2}\sec\frac{C}{2}}=\frac{1}{8}\frac{(a+b+c)^3}{abc}.$$

14. Prove that $\frac{\sin 3A-\cos 3A}{\sin A+\cos A}=2\sin 2A-1$.

Engineering Scholarship of the Third Year.—Senior Class.

Examiner, Professor Townsend, M.A.

1. Prove the prismoidal formula, and show how to calculate the area of the slopes and surface.

2. Given m and a, the tabular numbers for Macneill's second series corresponding to any two extreme heights; find Bidder's numbers, n being ratio of slopes.

3. The height of a frustrum of a right cone is H, the radii of the upper and lower sections are R R′; required the volume.

4. In the transit theodolite, describe accurately the meaning of the adjustment of the bubble tube attached to vertical limb, and the mode of effecting it, if required.

5. Read the vernier on the instrument set before you.

6. Given the radius of a curve and starting points; show how to put it in by means of offsets when odd distances occur.

7. The acreage of a survey measured with a chain one-fifth of a link too short is 640 acres; required the true acreage.

8. The observed altitude of a star taken with regard to the sea horizon from a height h is α; required the true altitude.

9. The altitude of two objects taken from a point A are α and α'; proceeding in a horizontal direction towards them to a point B, they have both the same altitude β; required the distance (horizontal) between the objects, the distance A B being m. *N.B.*—A B and both objects are situated in same vertical plane.

10. When the theodolite is used for finding the difference between the heights of two places situated on a steep incline, describe how the observations may be conducted, so as to neutralize the effect of curvature. Show by a diagram your reasons for so acting; and write down the value of the quantity above mentioned, given the horizontal distance between them.

Appendix, No. 2.

Scholarship Examinations.

MIXED MATHEMATICS.—*Examiner, Professor Curtis,* LL.D.

1. Find the centre of gravity of a cone.
2. Deduce the equation of equilibrium:—
   (*a*). In Hunter's screw.
   (*b*). In the endless screw.
3. Find the relation between the power and the weight in the case of a single movable pulley in which the two directions of the string are not parallel.
4. A heavy particle is placed on a rough sphere; find its limiting positions of equilibrium.
5. Establish the formula—

$$v^2 - v'^2 = 2fs.$$

6. A body is projected vertically upwards with a given velocity, V; find how high it will ascend, and in what time it will return to the earth.
7. A body falls through 400 feet; find the space described in the last second of its motion, gravity being equal to 32.
8. Find the centre of pressure of a vertical rectangle, the upper edge of which is situated in the surface of the liquid.
9. Several liquids, whose specific gravities are known, are mixed in given proportions, either of volume or weight; what equations serve to determine the specific gravity of the mixture?
10. Find the force requisite to work a suction pump, the dimensions of which are given.

EXPERIMENTAL PHYSICS.—*Examiner, Professor Curtis,* LL.D.

1. In determining specific gravity by means of the specific gravity bottle, the result is not affected by the operation being conducted in air. Prove this.
2. How may it be shown that the absorbing and radiating power of the same surface are identical?
3. How is the sudden expansion which takes place when water passes into the solid state accounted for? Give the general law of which this phenomenon is a case.
4. Describe the construction of Marcet's boiler, its use, and the manner of using it.
5. By what experiment did Faraday prove the exact function of the tin-foil coatings in a Leyden jar?
6. How do you account for the residual charge in a Leyden jar, and how may its amount relatively to the entire charge be found?
7. Describe accurately Clarke's electro-magnetic machine, and the various experiments which may be made with it.
8. A magnetic needle, free to revolve round a vertical axis, which passes through its centre of gravity, and divides its line of poles into two equal parts, is acted on by a vertical current distant from the axis by half this line; prove that the needle will remain in equilibrium in all positions.

GEOLOGY.—*Examiner, Professor William King.*

1. Describe quartz, feldspar, and mica.
2. Give the divisions (formations) of the Upper Silurian system.
3. Name some fossils characteristic of the Cretaceous system.

4. Describe the following fossils:—Trilobite, ammonite, productus, and spirifer. *Appendix, No. 2.*

5. Explain the origin of limestone.

6. Explain the differences between plutonic and volcanic rocks.

Scholarship Examinations.

ENGINEERING SCHOLARSHIP OF THE SECOND YEAR.—MIDDLE CLASS.

Examiner, Professor Townsend, M.A.

1. Given the projections of two lines; find angle between them. Do same for two planes.

2. Draw a tangent plane to a cone parallel to a given line.

3. Given the projections of two lines; find projections of shortest distance between them.

4. Draw a plane through a given line, making a given angle with a given plane not containing the line.

5. On a given line describe a regular pentagon. Through a given point in plane draw a line passing through the intersection of two given lines, the point of intersection not being given.

6. Reduce the annexed figure to its equivalent triangle.

7. Construct the isometrical projection of the solid whose projections are annexed.

8. Construct the shadow on an angular pulley.

9. Given the directions of the isometric axis, and the position of a line lying in an isometric plane; find geometrically the original length of the line.

10. The scale of a map is five chains to one inch, this is reduced to another one-third the area; required the representative fraction of the map so formed.

11. The distance between two points on a map is 7·3 inches, the scale is three miles to $1\frac{1}{2}$ inches; required the distance between the points in kilometres.

12. Given the projections of a line; show how to put it in perspective.

SECOND YEAR SCHOLARSHIPS IN MEDICINE AND ENGINEERING.

CHEMISTRY.—*Examiner, Professor Rowney,* PH.D.

1. Describe the mode of obtaining and the properties of nitrogen gas.

2. What is meant by isomorphism? Give some examples of isomorphous bodies.

3. Convert 15°, 64°, and 120° of the centigrade scale into the corresponding degrees of the Fahrenheit scale.

4. Give the laws of combination by weight and volume.

5. Describe the method of preparing phosphorus, its properties, and uses.

6. Write the formulæ in symbols of the oxides of manganese, aluminum, and chromium.

7. What is meant by the specific heat of a body?

8. How do you distinguish affinity from the forces of cohesion and adhesion?

Appendix, No 2.

Scholarship Examinations.

9. What is a compound radical? Give some examples.
10. What is the composition of soap, and how is it obtained?
11. When are compounds said to be isomeric?
12. Give the formulæ for gum, starch, and sugar.

Medical Scholarships of the Fourth Year.

Anatomy and Physiology.—*Examiner, Professor Clelqnd,* M.D.

1. Describe the mode of accommodation of the eye to distances.
2. Describe the process of deglutition, indicating shortly the part taken in the action by the groups of muscles called into play.
3. State how the ovum is impregnated, and what changes take place in its interior from the moment of impregnation till the appearance of the germinal membrane.
4. Describe the microscopic appearances of the liver, including the microscopic disposition of vessels and nerves.
5. State what is known of the function of the cerebellum, and of the corpora quadrigemina.

Medical Jurisprudence.—*Examiner, Professor M'Coy,* F.R.C.S.I.

1. There are strong grounds for suspecting that a person was poisoned by arsenic; suppose none can be found in the stomach or bowels, what further proceedings are to be taken in the post-mortem inquiry, to afford medical evidence in the case?
2. What is the difference (anatomical and otherwise) between marks on a dead body from contusions received during life, and cadaveric discolorations?
3. The dead body of an infant is found. What appearance, on superficial inspection, indicates that it must have lived at least three days after birth?
4. What analytic process will identify laudanum or other solution of opium found in the stomach of one suspected of being poisoned?

Materia Medica.—*Examiner, Professor M'Coy,* F.R.C.S.I.

[To prevent mistakes, the writing must be legible; the writer's signature be at the bottom of each page; the number-prefixed to each question to be put before the corresponding answer; the question itself not to be transcribed.]

1. In what class of medicines is strychnia ranked in general practice? Its dose? Give the *chief* symptoms that distinguish its poisonous action from tetanus.
2. Besides the purgative action of aloes, what organs and functions does it influence to extend its therapeutic value?
3. Name three or four distinct local actions expected from the application of nitrate of silver to certain strictures of the urethra.
4. What are the medical properties of arseniate of soda, and its dose? What remote morbid affections may follow the continued employment of arsenic in medical doses, differing from its ordinary actions as a poison?

5. State the distinctive characters of the alkaloids, and their differences from the neutral organic principles. *Appendix, No. 2.*

6. What is lithia; for what is its carbonate specially recommended, and on what grounds? What chemical action does it exhibit? Scholarship Examinations.

7. What is the longest time it would be prudent to leave a sinapism on an infant of three months old?

PRESCRIPTIONS.

Direct the proper number of leeches to be applied to the proper place, in a case of gastritis.

Direct a mixture of three ingredients for diarrhœa from relaxation.

(To be written in full, without contractions or symbols.)

SURGERY.—*Examiner, Professor Browne,* M.D.

1. In what situation in the forearm does the injury known as Collis's fracture occur? State clearly the signs of this accident when the fracture is impacted, and the causes which produce the deformity.

2. State the mode of treatment of this accident. Describe two or three splints especially recommended to be applied, and by whom they were so recommended.

3. Give a simple classification of aneurisms.

4. Who has denied the existence of what is termed a true aneurism? and name one or two writers who recognise this form of dilatation. What are the conditions which would be required to constitute a true aneurism? State the difference between true sauntated aneurism and a persiform aneurism. In what vessels does the latter form of this disease occur?

5. Give the general symptoms of an aneurism of the left subclavian artery, what may be the pressure effects of it as it increases, and state the various ways in which it may prove fatal to the life of the sufferer. In which of the right or left subclavian arteries does aneurism most frequently occur?

6. What are the principles on which the operations for the radical cure of reducible hernia are conducted?

7. Give a short description of Wutzer's operation, and what are its principal defects; and state how Woods proposes to remedy it by his operation, of which also give a short description.

PRACTICE OF MEDICINE.—*Examiner, Professor Colahan,* M.D.

1. Describe the stages and the symptoms, both general and physical, peculiar to each stage of *pneumonia*, and the concurrent morbid changes which the lung undergoes in the progress of the disease. State the condition of the urine, and the diagnostic indications afforded by the state of this fluid throughout the disease.

2. Describe the character of the expectorated matter in *acute bronchitis*, and the diagnostic aid given by the state of the sputa as to the stage, the vital force, and management of the disease. What are the secondary effects produced in the lung by prolonged bronchitis? Describe the manner in which these results are brought about, and the symptoms indicative of their existence.

Appendix, No. 2.

Scholarship Examinations.

3. Describe the pathological changes which take place in *acute pleurisy*, and the general and physical symptoms which these altered states induce.

4. Enumerate the general and physical symptoms of *acute pericarditis* throughout its several stages; mention the diseases with which it is most commonly associated, and its frequency of occurrence in these several maladies. State the morbid changes which take place during the progress of the disease.

5. Give the physical symptoms and morbid changes induced by *endocarditis*.

MIDWIFERY.—*Examiner, Professor Doherty*, M.D.

1. Classify the cases of difficult parturition which are met in practice.

2. What is the nature of malacosteon, rachitis, and exostosis; contrast the deformities produced by them in the female pelvis.

3. Mention the cases of labour in which the forceps may be used with advantage, and those in which its use would be prejudicial. Describe the mode of applying it.

4. How far is secale a remedy which is applicable to cases of difficult parturition? How may it injuriously affect the mother and the fœtus?

5. In cases of defective brim of the pelvis it has been proposed to resort to another operation in place of using the forceps. What is that operation; what advantages is it said to offer; how is it performed?

6. Ophthalmia neonatorum; what are its causes, symptoms, prognosis, and treatment?

7. Cyanosis; what are the malformations to which it may owe its existence?

8. Syphilis; what are the signs of its presence in the newly born? Within what period after birth does it show itself?

MEDICAL SCHOLARSHIPS OF THE THIRD YEAR.

PRACTICAL ANATOMY.—*Examiner, Professor Cleland*, M.D.

1. Describe the ligaments by which the scapula is bound to the clavicle.

2. Describe the latissimus dorsi muscle and state the structures on which it successively lies.

3. State explicitly the attachments of muscles which are found on the anterior crural aspect of the body of the pubes, mentioning the appearance of each and their position relatively one to another.

4. Describe the vessels and nerves of the stomach.

5. Describe the several anatomical arrangements by which elasticity is given to the foot.

MATERIA MEDICA.—*Examiner Professor M'Coy*, F.R.C.S.I.

[To prevent mistakes, the writing must be legible; the writer's signature be at the bottom of each page; the number prefixed to each question to be put before the corresponding answer; the question itself not to be transcribed.]

1. What is the officinal preparation of the podophilli radix; the medical effect it is said to produce beyond others of its class; its dose?

2. In what state of composition does its chief medical alkaloid exist in the officinal poppy? How must the dose, &c., of opium be modified according to its requirement—1st, as a sedative; 2nd, as a stimulant; 3rd, as an hypnotic; 4th, when required to act promptly and for a short time; and 5th, to act slowly and more persistently?

3. What is the active principle of cantharis? What are its best solvents? What is the longest time it would be prudent to leave a blister on one insensible, say from coma? On what parts of the body might a blister, in any case, be left on much longer than elsewhere?

4. How, and in what doses is sulphate of quinia administered in ague? What objection is there to infusion of roses as a vehicle for this salt?

5. What are the constituents of the mistura ferri composita? Give the precise purposes designed for each ingredient. What is the colour of the mixture when well prepared?

6. In what condition of the system is digitalis most certain as a diuretic? What methods greatly increase its diuretic powers? Under what circumstances is digitalis a dangerous diuretic?

Medical Scholarships of the Second Year.

Anatomy and Physiology.—*Examiner, Professor Cleland,* M.D.

1. Describe the characters of whatever description distinguishing white fibrous and yellow elastic tissues.

2. Describe the structure of the skin, and mention the effects of carmine on its microscopic elements.

3. State the means by which as large an amount of mucous surface as possible is obtained, to which the food may be exposed in its passage along the intestine.

4. Describe the nature of the limits and content of a narrow cavity.

5. Describe the differences of proportion in the infantile and adult forms of cranial cavity.

Natural Philosophy.—*Examiner, Professor Curtis,* LL.D.

1. Define the following terms:—Impenetrability, Elasticity, Hardness, Inertia.

2. Distinguish accurately between a solid and a fluid; mention the two classes of fluids, and state precisely the distinction between them.

3. How may the volume occupied by the pores of a given piece of chalk be determined?

4. State Mariotte's law, and describe the apparatus for verifying it.

5. Describe Leslie's Differential Thermometer.

6. Describe the various methods which have been employed for determining the temperature of water corresponding to its maximum density; and state what that temperature is.

7. Describe how gunpowder may be ignited—(*a*), by frictional electricity; (*b*), by voltaic electricity.

8. Describe Daniel's constant battery, and the chemical actions which take place in its working.

Appendix, No. 2.

Scholarship Examinations.

Law Scholarships.—First Year.

Jurisprudence.—*Examiner, Professor Cairnes,* M.A.

1. The doctrine that "laws emanate from superiors" is an identical proposition: why?

2. To the statement that "laws are a species of command," there are certain real, and certain apparent, exceptions?

3. "*Privilegia*" are of two sorts?

4. "Laws of imperfect obligation" have been understood in two senses?

5. "Positive Law" may become the subject of inquiry in jurisprudence from four distinct points of view. State what these are, and give examples of standard works in each department.

6. State and criticise Bentham's account of the doctrine of the "Law of Nature."

7. Bentham's ethical system is admitted by the most authoritative living exponents of his doctrine to be extremely defective; yet this deficiency has not materially affected the soundness of the juridical structure which he has erected thereon. How do you explain this circumstance?

8. What was Bentham's view as to the regard to be paid by the legislator to the difference, in point of sensibility, of persons subject to the action of law? Give some examples of the way in which he would apply this principle to practice.

9. Analyze and compare on Bentham's principles the evils respectively of an agrarian murder, and of one committed from revenge.

10. Legislation is not coextensive with morality: why?

11. Distinguish the *jus civile* from the *jus gentium.*

12. Distinguish rights *in rem* from rights *in personam.*

13. Distinguish *dominium* from *possessio*: by what process was the latter converted into the former?

14. What was the true conception of the Roman "tutor?" and how did it differ from that of the "curator?"

15. The reign of Hadrian is an epoch in Roman jurisprudence: why?

16. What is the meaning of *diminutio capitis?*

17. Mr. Maine notices three modes by which the improvement of the law has been effected: what are they? and to what stages of social progress are they respectively adapted?

18. Mr. Maine points out two distinct principles on which social and political combination took place in very early times: what are these, and which has been triumphant in the course of history? The history of Rome affords an example of their conflict.

Second Year.

Jurisprudence and Civil Law.

1. What are the four elements into which Bentham, with a view to juridical inquiries, resolves the happiness of the body politic; and what, in a juridical point of view, is their relative importance?

2. In seeking to favour equality by means of legislation three conditions should be observed?

3. Consistently with observing these conditions, what modes of promoting equality by law does Bentham suggest?

4. The goodness of laws depends on their conforming to general expectation? What rules does Bentham lay down for securing this conformity?

5. What are the conditions (positive and negative) necessary to constitute "an independent political society?"

6. Apply the above principle to the following statement from the *Times* as to the political position of the British colonies:—

"The power we desire to exercise (over the colonies) is entirely a moral one, and, strong or weak, the dependency that wishes to quit us has only solemnly to make up its mind to that effect."

7. The definition of the *jus naturale* given by Ulpian involves a confusion of distinct ideas?

8. Trace the analogy between the Roman "*gens*" and the "Hindoo community."

9. Describe the two modes of conveyance, "tradition" and "mancipation:" which was the more ancient form?

10. What was the origin of the "right of possession"? Distinguish this right from that conferred by "usucapion" as well as from that acquired by "prescription."

11. By what steps was the "inquisitorial" method of criminal procedure which obtained among the Anglo-Normans of the 13th century, transformed into the "litigious" method of modern times?

12. Describe the several forms of Roman marriage.

13. State the several enactments by which the *dominica potestas* was restrained in the literature of ancient Rome.

14. Describe the growth of the idea of "territorial sovereignty."

THIRD YEAR.

1. Explain the course by which the simplification of the transfer of property was effected in ancient Rome.

2. Define a will or testament.

3. What is "universal succession?" Give examples of this mode of transmitting rights in Roman and English law.

4. Distinguish the conception of "heir" as understood by a Roman and by an English lawyer.

5. Explain the connexion between testaments and adoption in Roman law.

6. What was the nature of the Prætorian will? and what was the nature of the "*jus tripartitum?*"

7. How does Maine account for the horror with which intestacy was regarded in Rome?

8. What, according to Maine, was the origin of contract in ancient Rome?

9. Contract in the course of its history has passed through four steps.

10. How came "*nomen*" to signify a debt?

11. An act may produce an evil of the first order, and a good of the second order, or conversely?

12. State the advantages and disadvantages respectively of the "inquisitorial" and the "litigious" method in criminal procedure.

13. With what arguments does Mr. Stephen advocate a return to the practice of interrogating prisoners?

14. Sir H. Palgrave contrasts the functions of the ancient with those of the modern jury.

Appendix, No. 2.

Scholarship Examinations.

FIRST YEAR.

LAW.—*Examiner, Professor Campion*, B.A.

1. An illegitimate son purchases an estate in fee and dies, whereupon his son enters as heir-at-law, and afterwards dies intestate, unmarried, and without issue; how does the estate devolve in that event? What is the effect of the 22 & 23 Vic., chap. 35, sec. 19 on descent?

2. An estate is conveyed to A for life, remainder to B in fee; B devises his estate in the lands to C for life, remainder to the heirs of A, and dies leaving A surviving; is A's estate enlarged?

3. Give an example of the doctrine of "cy-pres;" state the several elements which are essential to give it effect.

4. Give an illustration of an estate by operation of law, and of an estate created by implication, respectively. State the grounds on which the latter is founded.

5. Fee-simple and leasehold lands are granted in terms to "A and his heirs male;" other fee-simple lands and leasehold lands are devised "to A and his heirs male, remainder to B." What estates pass?

6. Explain and illustrate the distinction between a conditional limitation, an executory devise, the limit to the creation of the latter, and a contingent remainder, and in connexion with these the doctrine that a fee could not be limited upon a fee.

7. In what respect do long terms of years differ from ordinary leaseholds for years; upon what principle do they afford protection to a purchaser? When the term was assigned to the person who was tenant for life subject to the term, what was the immediate result, and on what principle of law?

8. Describe in terms the ordinary limitations to uses to bar dower. A deed of purchase containing such limitations having been executed in 1820, and containing an express declaration of intent to bar dower; the purchaser married in 1845, and died leaving his wife surviving; is she entitled to dower? State the grounds of your answer.

9. The descendants of a purchaser of real estate being exhausted; trace the descent to his grandfather, and the issue of the latter, assuming that father and grandfather were each twice married, and had each sons and daughters by both marriages.

10. Distinguish between the creation and the assignment of a term of years in reference to the operation of the Statute of Uses, and state the particular grounds of your answer.

11. One denomination of land was conveyed to A for life, remainder to B and the heirs of her body. Another denomination of land was conveyed to B and the heirs male of her body. B married, had issue a daughter, and died leaving her husband surviving. Could the latter sustain any claim in respect to these estates?

12. Prior to the 3rd & 4th Wm. IV., 106 (the Descent Act), the owner in fee of lands, having two daughters, his only issue and coheiresses, devised the lands "to them and their heirs;" another owner in fee at the same time devised his estate to his eldest son and heir-at-law in fee; how did the devisees take? State the reasons of the answer.

13. The owner of lands for a lease for one life, by indenture makes an under lease of the lands for forty years; he also, at the same time, makes a lease by indenture for forty years of other lands in which he had no estate at the time. The life for which he held the former lands drops before the expiration of said term; but in the meantime he purchased the fee in both lands. State the result and the grounds of it in connection with the principle of Estoppel.

14. A makes a mortgage in fee to B who dies; upon a subsequent assignment of the mortgage or reconveyance of the mortgaged estate, who are the necessary parties, and on what ground?

15. Upon the decease in 1840 of one of two sisters, coparceners in fee, intestate, leaving her sister, also her husband, two daughters, and a grandson of a deceased daughter her surviving; what is the devolution of her estate in the above events? State the grounds on which doubts were raised as to the devolution of the estate in these events; in what manner are these doubts respectively explained by Mr. Williams in his treatise?

16. Is the settlement of real estate by way of remainder governed by any and what rule more stringent than the rule of perpetuity, which restrains executory interests within a certain period? In what manner does Williams illustrate the subject?

17. State the effect of the following conveyances, and explain the grounds of the answer in each case:—A release to A and his heirs upon trust for B and his heirs. A feoffment unto and to the use of A and his heirs to the use of B and his heirs. A bargain and sale to A and his heirs to the use of B and his heirs. A grant to A (simply) to the use of B and his heirs. Explain the meaning of a power of appointment operating on uses.

18. A being seized of certain lands makes his will in 1830, and thereby devised the lands to B and his heirs; made C residuary devisee of his real estate; afterwards purchased other lands in fee and died, leaving C surviving (B having died before testator). What is the devolution of the respective estates in these events?

SECOND YEAR.

1. In what manner did the 19 & 20 Vic., chap. 97, extend the relief previously given in equity to sureties on payment of the debt? Give an example of its application. To what former distinction as to the nature of the securities was that statute directed?

2. Give an example of a case of marshalling assets in equity in the case of a vendor's lien. Against whom does the lien exist? When and on what principle does it not prevail?

3. A father being indebted to his son in £1,000, makes the latter his residuary legatee (the residue amounting to £1,000); a child being entitled under his father's settlement to a portion of £500 is made residuary legatee under his father's will (the residue amounting to £400); does the rule of equitable satisfaction apply in these cases?

4. An estate in fee, subject to incumbrances, is settled upon A for life, remainder to B in tail, remainder to C (an infant) in tail, remainder to D in fee; what is the rule in equity as to the obligation of the owners of the estates respectively, when in possession, as between them and those next in remainder to keep down interest on incumbrances, and on what ground?

5. To what extent has a volunteer a *locus standi* in a court of equity? how far does this depend on the character of the instrument under which he claims?

6. Testator bequeaths a specific chattel to A, £1,000 to B, and after some specific devises makes C residuary devisee of his lands; the personal estate is insufficient to pay debts and legacies. As between the devisees and respective legatees in what order are the assets applicable to the payment of debts?

7. Previously to the 17 & 18 Vic., chap. 113, when was the devisee

Appendix, No. 2.

Scholarship Examinations.

of a mortgaged estate not entitled to have the mortgage paid out of his testator's personal estate as the primary fund; as against whom did that right then prevail, and what is the operation of the statute?

8. Under what circumstances will equity aid the defective execution of a power, and when the non-execution; and on what principle in each case?

9. Can a party who elects to take against a will claim any benefit under such will compatibly with the doctrine of election?

10. In the year 1850 a testator devises all his freehold estate to his heir, and bequeaths pecuniary legacies not charged on his real estate; his debts by specialty and simple contract exhaust the personalty; can the legatees obtain payment of their legacies? State the reason of the answer.

CONTRACTS AND PERSONAL PROPERTY.

11. What legal doctrine was established by the leading case of Coggs *v.* Barnard, Raymond's Reports, 909, in reference to gratuitous bailees, and in what respect does their position differ from that of other bailees?

12. A woman at the time of her marriage had leaseholds, for years and general personal estate; she was also payee of a promissory note, and was indebted to several persons for debts incurred by her *dum sola;* she dies, leaving her husband surviving, who received interest on the promissory note during her life; in these events who is entitled to the properties, who entitled to sue on the note, and by whom are the debts to be paid? State the legal grounds in each case.

13. When the consideration for a promise is past and executed, in what cases will a previous request be implied?

14. Explain the proposition that a consideration past and executed will support such a promise only as the law would imply.

15. What did the leading authority of Wain *v.* Warlters, 5 East. 10, decide as to the legal meaning of the term agreement? To what extent has the law in that respect been altered by the 19 & 20 Vic., chap. 97, sec. 3?

16. When an agent sells goods for an undisclosed principal, in whose name is the action to be brought, to what qualification is the rule subject, what is the effect of a contract by the agent under seal, and on what ground in such cases?

17. State some of the leading rules of judicial interpretation of the 4th section of the Statute of Frauds, as furnishing what is the meaning and criterion of an agreement coming within the several divisions of that section.

18. Upon a bequest of a term of years to A for life, remainder to B, what is the precise legal effect as regards quantity of estate, and on what grounds?

19. Personal property is settled in terms upon trust for A for life, and after his decease to such son of A as shall first attain the age of twenty-one years; A dies, at whose decease no son of his attained the age alluded to; how does this limitation operate? Compare it with a limitation of the legal estate in real property in the same terms.

20. A married woman is entitled to the following species of property, viz., reversionary chose in action, the subject of her marriage settlement, a contingent right to money irrespective of such settlement, a reversionary leasehold, and a sum of money (reversionary) charged on real estate; explain the power or extent of the power of disposition of the husband or husband and wife in respect to the several species of property, and the change effected by statutable enactment.

THIRD YEAR.

Scholarship Examinations.

1. A married woman having separate estate (real and personal) incurs debts for which she gives security by bonds and promissory notes respectively; to what extent, and by what particular mode as regards each species of property, does a Court of Equity give relief against her separate estate in respect of such contracts. On her decease have her creditors by specialty and simple contract any remedy, and when paid in what order are such debts discharged? State the reason of the latter.

2. Will assignments of choses in action (where the right to sue at law does not pass) ever and when be supported in equity in favour of volunteers. What mode equivalent to the transfer of the legal estate may be adopted by the equitable owner of a fund vested in trustees? State the doctrine of the leading case of Ellisson and Ellison, 6 Vesey, in reference to voluntary trusts.

3. When a testator directs the sale of his real estate, and the application of the proceeds to purposes which partially fail, what is the general result of the authorities as to the presumption of a resulting trust—first, when the competition is between the heir-at-law and next of kin; and secondly, when it is between the heir-at-law and residuary or other legatee?

4. A testator devised leasehold for lives to trustees for A and the heirs of his body, and, if A should die without issue, remainder to B. A effected a surrender of the old lease and took a new lease to himself and his heirs for three new lives and died without issue, having devised the lands to his wife. B files a bill, upon the ground of constructive trust; has he any right. State the principle applicable to that subject and the leading case.

5. In what manner did the leading case of Hulme and Tenant extend the principle of the liability of the separate estate of married women beyond previous decisions.

6. Upon what principle is it that parol evidence is admissible to raise or rebut a resulting trust consistently with the provisions of the Statute of Frauds?

7. A, by a will made in 1830, not duly attested for passing freehold estates, devised his real estate in fee to B, and bequeathed his personal estate to C, his eldest son, and died. How did the respective properties devolve? Does election apply?

8. A bequeaths the sum of £10,000 to be invested in lands to be settled on his daughter B as tenant in tail. B survives A, marries, has issue, and dies, leaving her husband surviving (no purchase of the land having been made during the daughter's life), has the husband any rights?

9. A is surety for B in a bond executed by both for payment of money to a creditor. C afterwards executes another bond subsidiary to and as a security for payment of the first. A is compelled to pay the debt, is there any contribution between A and C. When suretyship arises under different instruments, to what extent does the rule of contribution apply. (Deering *v.* Winchelsea, 1st Cox, 318.)

10. By a will made in 1820, A (the testator) being then possessed of certain lands, devised the said lands and "all the estates whereof he should die possessed" to B in trust for the children of A equally, and afterwards purchased other estates in fee and died leaving three sons. What are the rights of the sons respectively?

Appendix, No. 2.

Scholarship Examinations.

11. A having a mortgaged estate and an unincumbered estate, devises them both specifically, charges all his real estate with the payment of his debts, and makes a specific bequest of his personal estate; in what manner is the mortgage debt paid?

12. A purchases an estate in the joint names of his son and a stranger. What is the immediate effect as regards the three parties, respectively? State the leading rules as to what is sufficient to rebut the presumption of advancement in equity.

13. A and B execute their joint and several promissory note to C. B alone afterwards executes a deed and thereby covenants with C to pay him the amount due on the note. Does this case come within the rule of merger of a prior security; to what qualification is the rule subject?

14. By what means can a specialty be discharged? Can accord and satisfaction ever, and if so when, be pleaded in answer to an action of covenant? (Blake's case, 6 Rept. 43 b.)

15. When it is sought to make a party liable upon the ground of the ratification of a previous tort committed by another person, by what test is that liability to be decided?

16. A B gives a bill of sale of his goods (of which he retains possession) to C D, who registers the same in compliance with the provisions of the statute; A B becomes a bankrupt; is the bill of sale affected by the bankruptcy? State the statutable provision applicable to this subject.

17. When will immunity from criminal responsibility be granted to a married woman upon the ground of constructive coercion of her husband? To what class of crimes does this apply?

18. Explain the meaning of "injuria sine damno" by reference to an example. State the leading case on the subject.

19. A and B jointly wrongfully convert goods, and A receives proceeds. The owner recovers judgment in trover against B for the conversion, and afterwards brings an action for money had and received against A to recover their value; does the latter action lie? State the grounds of the answer.

20. A commits an offence under the influence of a partial delusion as to existing facts without being otherwise insane. What is the test of criminal responsibility in such case. (M'Naughten's case, 10 Clarke and Finnelly.)

21. Give an illustration of the maxim "expressum facit cessare tacitum" by reference to the covenants of a deed.

22. What is the difference between a judgment in rem, and a judgment inter partes? Is a judgment impeachable upon any ground? What is the effect in this country of a foreign or colonial judgment?

23. A makes a voluntary conveyance of real estate to B, and dies leaving C his heir-at-law; C conveys the same lands for value to D; does the latter supersede the former conveyance?

SENIOR SCHOLARSHIP.

1. Two servants are engaged in the common service of the same master, and while so engaged one sustains an injury by reason of the negligence of the other. Can the former sustain an action against the

master for such injury? What is the rule of law on this, and subject to what qualification?

Hutchinson *v.* the York, Newcastle, and Berwick Railway Company, 5 Exch., 343.

2. In an action upon a bond against a surety, the latter pleads that by parol agreement the plaintiff gave time to the principal debtor; is this a good plea? Does the 19 and 20 Vic., ch. 102, affect this question?

3. A and B being jointly indebted to C, on a promissory note; C agrees to relinquish their joint security in consideration of getting the sole security of A. Is there sufficient consideration in this case? State the grounds of the answer.

4. Two persons having been jointly and severally liable upon a promissory note, one died, after which, and in the year 1855, the survivor made a payment on foot of the note; in an action afterwards brought against the representative of the deceased, did such part payment prevent the bar of the Statute of Limitations in that action, the debt having been otherwise barred by time? Mention any recent statute applicable to this subject.

5. What are the rules to be deduced from Blake's case, 6 Rep. 43 *b*, in reference to the admissibility of a plea of accord and satisfaction (and when) in an action of covenant?

6. When a certain sum is in express terms agreed to be paid upon a breach of contract; by what criterion do you ascertain whether the sum is to be deemed a penalty or liquidated damages, and what important consequence results from either? Kemble *v.* Farrin, 6 Bing., 141.

7. By will made after the 1st Vic., ch. 26, a man having a rentcharge in fee then vested in him, and being also owner in fee of lands, devises to A a rentcharge on said lands (thereby created *de novo*) and devises the first mentioned rentcharge to B (in each case generally and without any word of limitation); what estates are devised?

8. A testator having two estates A and B, charges all his estates with his debts, and devises estate A to trustees upon trust to pay his debts; the debts remain unpaid for a period exceeding twenty years. State the construction of the Statute of Limitation, and the effect of time as to these estates respectively, when the debts are sought to be recovered thereout.

9. Will a court of equity compel a purchaser to accept a title depending upon the invalidity of a voluntary conveyance? A executes a voluntary conveyance of lands to B, and afterwards another voluntary conveyance of the same lands to C, who grants the lands to a purchaser for value. Whose is the estate, and upon what construction of the statute?

10. By a will made in 1830, lands were devised to A for life, remainder to his *second son* in tail male, and in default of issue of A, to B in fee; A had several children. What estates were taken under this devise?

11. A testator after devising an estate in limitations to an existing person for life, with remainder to his issue as tenants in tail, empowers trustees on the birth of each tenant in tail to revoke the uses and to limit an estate for life to such infant with remainder to his issue; is this open to any objection?

12. What is the result of the authorities as to a devise for life to an unborn person, and a remainder expectant thereon respectively?

Appendix, No. 2.

Scholarship Examinations.

13. An estate was devised "to A for life, remainder to his issue male and the heirs male of the body of such issue male, and in default of such issue male, over." What estate did A take? Upon the construction of the word issue following a previous estate given to the parent for life, what was the effect of words of limitation superadded to the word issue?

14. When there was a devise of mortgaged lands before the 17th and 18th Vic., 113, in a case where the lands came to the testator by descent, encumbered with the mortgage; what acts of his amounted to an adoption of the debt, so as to entitle the devisee to exoneration out of the personal estate?

15. A testator being seized in fee of lands in the parish of A only, and having a general power of appointment over lands in the parishes of A and B, in 1830 devised "all his lands in the parishes of A and B." Did this will operate as an exercise of the powers of appointment of the lands in both parishes?

16. By will made in 1830, lands were devised generally and without words of limitation to B, who was thereby directed to pay a gross sum of £1,000, which sum was only a contingent charge. What estate passed?

17. A married woman having a power of appointment over a fund, by will bequeaths it to her husband in exercise of that power, and by the same will professes to bequeath to A B other personal property to which her power did not extend; she dies, leaving her husband and A B surviving. Can the husband take the benefit of the appointment and defeat the intended bequest of the other property by the assertion of his marital right? Explain this by reference to the principles of election.

18. Previously to the 1st Vic., chap. 26, what was the effect of a mortgage upon a previous devise of land in fee? When did a subsequent mortgage operate as an entire and absolute revocation of a devise? Give an example in terms.

19. Prior to the Statute of Wills, 1st Vic., chap. 26, when did a general devise of real estate operate as an execution of a power of appointment? What was the distinction as to personal estate, and on what principle founded? State the effect of the statute alluded to.

20. By will made in 1840, a testator in exercise of a general power of appointment appoints the proceeds of real estate to his daughter, who dies during his life, leaving issue living at the death of testator; does the event cause lapse? What is the result?

21. In what manner and on what principle were claims by prescription formerly maintained in evidence? What was the nature of the proof required, and how defeated? What is now the operation of the 2nd, 3rd, Wm. 4, ch, 71, in reference to pleading and evidence, on that subject?

22. When entries of a deceased third party are tendered in evidence as having been made in the course of business, what additional element is required to be proved which is not necessary in the case of declarations admitted on the ground of their having been made against interest?

23. In considering the weight of evidence, what is the meaning of moral certainty as required in criminal cases; and distinguish between civil and criminal cases in that respect.

Sessional Examinations, 1864.

THIRD YEAR'S STUDENTS.

GREEK.—*Examiner, Professor Nesbitt,* M.A.

ÆSCHYLUS—*Septem contra Thebas.*

Translate, adding brief notes where a word, a construction, or an allusion may seem to require it. Adopt any various readings you prefer.

οὕτως, γένοιτο. τὸν δὲ πέμπτον αὖ λέγω,
πέμπταισι προσταχθέντα Βορραίαις πύλαις,
τύμβον κατ' αὐτὸν Διογενοῦς Ἀμφίονος.
ὄμνυσι δ' αἰχμὴν ἣν ἔχει μᾶλλον θεοῦ
σέβειν πεποιθὼς ὀμμάτων θ' ὑπέρτερον
ἢ μὴν λαπάξειν ἄστυ Καδμείων βίᾳ
δορός· τόδ' αὐδᾷ μητρὸς ἐξ ὀρεσκόου
βλάστημα καλλίπρῳρον, ἀνδρόπαις ἀνήρ.
στείχει δ' ἴουλος ἄρτι διὰ παρηΐδων,
ὥρας φυούσης, ταρφὺς ἀντέλλουσα θριξ.
ὁ δ' ὠμὸν, οὔτι παρθένων ἐπώνυμον
φρόνημα, γοργὸν δ' ὄμμ' ἔχων, προσίσταται.
οὐ μὴν ἀκόμπαστόν γ' ἐφίσταται πύλαις·
τὸ γὰρ πόλεως ὄνειδος ἐν χαλκηλάτῳ
σάκει, κυκλώτῳ σώματος προβλήματι,
Σφίγγ' ὠμόσιτον προσμεμηχανημένην
γόμφοις, ἐνώμα, λαμπρὸν ἔκκρουστον δέμας·
φέρει δ' ὑφ' αὑτῇ φῶτα, Καδμείων ἕνα,
ὡς πλεῖστ' ἐπ' ἀνδρὶ τῷδ' ἰάπτεσθαι βέλη.
ἐλθὼν δ' ἔοικεν οὐ καπηλεύσειν μάχην
μακρᾶς κελεύθου δ' οὐ καταισχυνεῖ πόρον,
Παρθενοπαῖος Ἀρκάς· ὁ δὲ τοιόσδ' ἀνὴρ
μέτοικος, Ἄργει δ' ἐκτίνων καλὰς τροφὰς
πύργοις ἀπειλεῖ τοῖσδ' ἃ μὴ κραίνοι θεός.

Translate into Greek Iambics:

I'll tell ye; 'tis not vain or fabulous
(Though so esteemed by shallow ignorance)
What the sage poets, taught by the heavenly muse
Storied of old, in high immortal verse,
Of dire chimeras, and enchanted isles,
And sifted rocks, whose entrance leads to Hell:
For such there be; but unbelief is blind.
Within the navel of this hideous wood,
Immured in cypress shades, a sorcerer dwells,
Of Bacchus and of Circe born, great Comus,
Deep skilled in all his mother's witcheries;
And here to every thirsty wanderer
By sly enticement gives his baleful cup,
With many murmurs mixed.

Appendix, No. 2.

Sessional Examinations.

SECOND AND THIRD YEAR'S STUDENTS.

1. What are the notions expressed by the genitive absolute in Greek? Compare accurately its use with that of the absolute ablative in Latin. In what cases is the accusative absolute used in Greek.

2. For the sake of greater clearness certain particles are added to appositive participles as well as to participles joined with an absolute case. Give instances of such supplements to participles.

3. Some verbs take after them a supplementary or predication participle rather than an infinitive mood. Classify such verbs, and exemplify the use in each class.

4. Give alternative forms for the expressions:—*ἐγώ εἰμι τῶν ἡδέως μὲν ἄν ἐξελεγχθεντων, ἡδέως δ' ἀν ἐξελεγξάντων. Φίλιππος Ποτίδαιαν ἑλὼν καὶ δυνηθεὶς ἂν αὐτὸς ἔχειν, εἰ ἐβουλήθη, Ὀλυνθίοις ἀπέδωκεν.*

5. Mention some restrictions in the attractive of the relative into the case of the antecedent.

6. (1) Translate, and explain the use of the negative in the following expressions:—(*a*). *οὐδεὶς πώποτε Σωκράτους οὐδὲν ἀσεβες οὐδὲ ἀνόσιον οὔτε πράττοντος οὔτε λέγοντος ἤκουσεν.* (*b*). *οὐδεὶς ἀνθρώπων ἀδίκων τίσιν οὐκ ἀποδώσει.*

(2) Explain and illustrate the various combinations of the negative particles *οὐ* and *μή*.

(3). Point out and explain an irregularity in the use of the negative in the following sentence:—*οὔτε τούτων οὐδέν ἐστιν ἀληθές οὐδὲ γ' εἴ τινός ἀκηκόατε, ὡς ἐγὼ παιδεύειν ἐπιχειρῶ ἀνθρώπους.*

7. Decline with accents:—*μήτηρ, στάσις, ποῦς, ἡγεμών.*

EURIPIDES—*Ion.*

1. Translate:—

ΚΡ. *ὦ ψυχά, πῶς σιγάσω;*
πῶς δὲ σκοτίας ἀναφήνω
εὐνάς; αἰδοῦς δ' ἀπολειφθῶ;
τί γὰρ ἐμπόδιον κώλυμ' ἔτι μοι;
πρὸς τίν' ἀγῶνας τιθέμεσθ' ἀρετῆς;
οὐ πόσις ἡμῶν προδότης γέγονεν;
στέρομαι δ' οἴκων, στέρομαι παίδων,
φροῦδαι δ' ἐλπίδες, ἃς διαθέσθαι
χρῄζουσα καλῶς οὐκ ἐδυνήθην,
σιγῶσα γάμους,
σιγῶσα τόκους πολυκλαύτους.
ἀλλ' οὐ τὸ Διὸς πολύαστρον ἕδος
καὶ ᾿Ιλιὰν ἐπ' ἐμοῖς σκοπέλοισι θεὰν
λίμνης τ' ἐνύδρου Τριτωνιάδος
πότνιαν ἀκτὰν
οὐκέτι κρύψω λέχος, ὡς στέρνων
ἀπονησαμένη ῥᾴων ἔσομαι,
στάζουσι κόραι δακρύοισιν ἐμαὶ
ψυχὰ δ' ἀλγεῖ, κακοβουλευθεῖσ'
ἔκ τ' ἀνθρώπων ἔκ τ' ἀθανάτων
οὓς ἀποδείξω
λέκτρων προδότας ἀχαρίστους.—(859–880),

(*a*). Explain accurately the expressions, ἃς διαθέσθαι . . . ἐδυνήθην; στέρνων ἀπονησαμένη. *Appendix, No. 2.*

(*b*). What variant has been proposed for κακοβουλευθεῖσ'? Discuss the form of the word. Sessional Examinations.

2. Translate and explain the following passages, and, in doing so, adopt any various readings you may prefer, stating your reasons for the preference.

(*a*). στενομένα γὰρ ἂν πόλις ἔχοι σκῆψιν
ξενικὸν εἰσβολάν.
ἄλις δ' ἄλις ὁ πάρος ἀρχαγὸς ὢν
Ἐρεχθεὺς ἄναξ.

(*b*). βάκτρῳ δ' ἐρείδου περιφερῆ στίβον χθονός.

(*c*). μισεῖ σ' ἁ Δᾶλος καὶ δάφνας
ἔρνεα φοίνικα παρ' ἀβροκόμαν,
ἔνθα λοχεύματα σέμν' ἐλοχεύσατο
Λατὼ Δίοισί σε καρποῖς.

(*d*). ἁλοὺς μὲν ἀνέφερ' ἐς τὸν δαίμονα,
ἐλθὼν δὲ καὶ τὸν χρόνον ἀμύνεσθαι θέλων
τυραννίδ' αὐτῷ περιβαλεῖν ἔμελλε γῆς.

(*e*). Εἰνοδία, θύγατερ Δάματρος, ἃ τὼν
νυκτιπόλων ἐφύδων ἀνάσσεις,
καὶ μεθαμερίων ὄδωσον δυσθανάτων
κρατήρων πληρώματ', ἐφ' οἷσι πέμπει
πότνια πότνι' ἐμὰ χθονίας
Γοργοῦς λαιμοτόμων ἀπὸ σταλαγμῶν
τῷ τῶν Ἐρεχθεϊδᾶν
δόμων ἐφαπτομένῳ.

(*f*). αἰσχύνομαι τὸν πολύυμνον
θεόν, εἰ παρὰ Καλλιχόροισι παγαῖς
λαμπάδα θεωρὸν εἰκάδων
ὄψεται ἐννύχιος ἄϋπνος ὤν.

(*g*). μελάμπεπλος δὲ Νὺξ ἀσείρωτον ζυγοῖς
ὄχημ' ἔπαλλεν.

(*h*). τὴν σὴν ὅπου σοι μητέρ' ἐστὶ νουθέτει.

(*i*). τάδ' οὐχὶ δεινά; ῥυσιάζομαι λόγῳ.

Write a note on ῥυσιάζομαι.

FIRST YEAR'S STUDENTS.

THUCYDIDES, Book I.

1. Translate:—

Ἀναγκαῖον Κερκυραίων τῶνδε οὐ μόνον περὶ τοῦ δέξασθαι σφᾶς τὸν λόγον ποιησαμένων, ἀλλ' ὡς καὶ ἡμεῖς τε ἀδικοῦμεν καὶ αὐτοὶ οὐκ εἰκότως πολεμοῦνται, μνησθέντας πρῶτον καὶ ἡμᾶς περὶ ἀμφοτέρων, οὕτω καὶ ἐπὶ τὸν ἄλλον λόγον ἰέναι, ἵνα τὴν ἀφ' ἡμῶν τε ἀξιωσιν ἀσφαλέστερον προειδῆτε καὶ τὴν τῶνδε χρείαν μὴ ἀλογίστως ἀπώσησθε. φασὶ δὲ ξυμμαχίαν διὰ τὸ σῶφρον οὐδενός πω δέξασθαι· τὸ δ' ἐπὶ κακουργίᾳ καὶ οὐκ ἀρετῇ ἐπετήδευσαν, ξύμμαχον

Appendix, No. 2.

Sessional Examinations.

τε οὐδενα βουλόμενοι πρὸς τἀδικήματα οὐδὲ μάρτυρα ἔχειν, οὔτε παρακαλοῦντες αἰσχύνεσθαι. καὶ ἡ πόλις αὐτῶν ἅμα, αὐτάρκη θέσιν κειμένη, παρέχει αὐτοὺς δικαστὰς ὧν βλάπτουσί τινας μᾶλλον ἢ κατὰ ξυνθήκας γιγνεσθαι, διὰ τὸ ἥκιστα ἐπὶ τοὺς πέλας ἐκπλέοντας μάλιστα τοὺς ἄλλους ἀνάγκῃ καταίροντας δέχεσθα. κἀν τούτῳ τὸ εὐπρεπὲς ἄσπονδον οὐχ ἵνα μὴ ξυναδικήσωσιν ἑτέροις προβέβληνται, ἀλλ' ὅπως ἵνα κατὰ μόνας ἀδικῶσιν καὶ ὅπως ἐν ᾧ μὲν ἂν κρατῶσι πλεόν ἔχωσιν, ἢν δέ πού τι προσλάβωσιν ἀναισχύντωσιν. καίτοι εἰ ἦσαν ἄνδρες, ὥσπερ φασίν, ἀγαθοί, ὅσῳ ἀληπτότεροι ἦσαν τοῖς πέλας, τοσῷδε φανερωτέραν ἐξῆν αὐτοῖς τὴν ἀρετὴν διδοῦσι καὶ δεχομένοις τὰ δίκαια δεικνύναι.—(c. 37.)

(*a*). Explain and illustrate the expression μᾶλλον ἢ κατὰ ξυνθήκας. (*b*). Cite parallels to the expression τὸ εὐπρεπὲς ἄσπονδον. (*c*). It has been proposed to read οὔτε for οὐδέ before μάρτυρα: criticise the emendation.

2. What is the period of Greek history comprised in the ἐκβολή from the 89th to the 117th chapter of the first book of Thucydides?

2. When, according to Mr. Grote, had the transition from the Athenian Hegemony to the Athenian Empire been consummated?

3. προσεχώρησαν δὲ καὶ Μεγαρῆς' Αθηναίοις ἐς ξυμμαχίαν Λακεδαιμονίων ἀποστάντες What is the date assigned by Mr. Grote for this event? Trace the important consequences to the Athenians, and to Greece generally, of the acquisition.

4. When and under what circumstances was the five years' truce concluded? What were the conditions of the so called peace of Callias? State the arguments for and against the reality of the peace.

Translate into Greek prose:—

Sylla had a general taste for literature; he was ultimately acquainted with the writers of Greece; he delighted in the society of men of talent; and he was himself long and carefully engaged in recording the history of his own actions; yet no man was ever more stained with cruelty, nor was any more degraded by habitual and gross profligacy. Nor is this at all wonderful, if we consider that the intellectual faculties, like the sensual, are gratified by exercise; and that the pleasure derived from the employment of talent is quite distinct from the application of the lessons taught by the understanding to the government of the affections and the conduct. In all men whose mental powers are at all considerable, the indulgence of them is as much an object of mere natural appetite as the gratification of hunger and thirst; and it is only because it is less common that it is regarded as conferring on the character a much superior value.

SECOND YEAR'S STUDENTS.

LATIN.—*Examiner, Professor Bagley,* M.A.

Translate:—VIRGIL.—*Georgics,* I., 118.

Nec tamen, hæc cum sint hominumque boumque labores
Versando terram experti, nihil improbus anser,
Strymoniæque grues, et amaris intuba fibris
Officiunt, aut umbra nocet. Pater ipse colendi
Haud facilem esse viam voluit, primusque per artem

Movit agros, curis acuens mortalia corda,
Nec torpere gravi passus sua regna veterno.
Ante Jovem nulli subigebant arva coloni;
Ne signare quidem aut partiri limite campum
Fas erat; in medium quærebant, ipsaque tellus
Omnia liberius, nullo poscente, ferebat.
Ille malum virus serpentibus addidit atris,
Prædarique lupos jussit, pontumque moveri;
Mellaque discussit foliis, ignemque removit
Et passim rivis currentia vina repressit,
Ut varias usus meditando extunderet artis
Paullatim, et sulcis frumenti quæreret herbam,
Ut silicis venis abstrusum excuderet ignem.
Tunc alnos primum fluvii sensere cavatas,
Navita tum stellis numeros et nomina fecit,
Pleïadas, Hyadas, claramque Lycaonis Arcton.

TERENCE—*Andria*, Act II., Scene v.

Byrrhia—Simo—Davus—Pamphilus.

By. Erus me relictis rebus jussit Pamphilum
Hodie observare, ut, quid ageret de nuptiis,
Scirem: id propterea nunc hunc venientem sequor.
Ipsum adeo præsto video cum Davo: hoc agam.
Si. Utrumque adesse video. *D.* hem, serva. *S.* Pamphile.
D. Quasi de improviso respice ad eum. *P.* ehem pater.
D. Probe. *S.* hodie uxorem ducas; ut dixi, volo.
By. Nunc nostræ timeo parti, quid hic respondeat.
P. Neque istic, neque alibi tibi erit usquam in me mora. *B.* hem.
D. Obmutuit. *B.* quid dixit? *S.* facis ut te decet,
Cum istuc quod postulo impetro cum gratia.
D. Sum verus? *B.* erus, quantum audeo, uxore excidit,
S. I nunc iam intro; ne in mora, cum opus sit, sies,
P. Eo. *B.* nullane in re esse cuiquam homini fidem?
Verum illud verbum 'st, vulgo quod dici solet,
Omnis sibi esse melius malle, quam alteri.

1. Give some account of the history of Roman comedy and of its principal writers.

2. Translate and explain the following sentence:—"Acta ludis Megalensib. M. Fulvio et M.' Glabrione ædilib. curulib. Egerunt L. Ambivius Turpio L. Atilius. Prænestinus. Modos fecit Flaccus Claudi tibsis parib. dextris et sinistris. Et est tota Græca. Edita M. Marcello Cn. Sulpicio Coss."

Translate, explaining anything that appears to you to require explanation:—

CICERO—*Pro Plancio*, XXXIV.

Sed hæc nescio quomodo frequenter in me congessisti saneque in eo creber fuisti, te idcirco in ludos causam conjicere noluisse, ne ego, mea consuetudine aliquid de tensis misericordiæ caussa dicerem quod in aliis ædilibus ante fecissem. Non nihil egisti hoc loco; nam mihi eripuisti ornamentum orationis meæ. Deridebor si mentionem tensarum fecero, quum tu id prædixeris: sine tensis autem quid potero dicere? Hic etiam addidisti me idcirco mea lege exsilio ambitum

Appendix, No. 2.

Sessional Examinations.

sanxisse, ut miserabiliores epilogos possem dicere. Non vobis videtur cum aliquo declamatore, non cum laboris et fori discipulo disputare? Rhodi enim, inquit, non fui: me vult fuisse: sed fui, inquit—putabam in Vaccæis dicturum—bis in Bithynia. Si locus habet reprehensionis ansam aliquam, nescio cur severiorem Nicæam putes quam Rhodum: si spectanda caussa est, et tu in Bithynia summa cum dignitate fuisti, et ego Rhodi non minore. Nam quod in eo me reprehendisti, quod nimium multos defenderem utinam et tu qui potes, et ceteri qui defugiunt vellent me labore hoc levare! Sed fit vestra diligentia, qui in caussis ponderandis omnes fere repudiatis, ut ad nos plerœque confluant, qui miseris et laborantibus nihil negare possumus. Admonuisti etiam, quod in Creta fuisses, dictum aliquod in petitionem tuam dici potuisse: me id perdidisse. Uter igitur nostrum est cupidior dicti? egone, qui quod dici potuit non dixerim; an tu qui etiam ipse in te dixeris? Te aiebas de tuis rebus gestis nullas literas misisse, quod mihi meæ quas ad aliquem misissem obfuissent. Quas ego mihi obfuisse non intelligo, reipublicæ video prodesse potuisse.

TACITUS.—*Histories* III., 38.

Nota per eos dies Junii Blæsi mors et famosa fuit, de qua sic accepimus, gravi corporis morbo æger Vitellius Servilianis hortis turrim vicino sitam conlucere per noctem crebris luminibus animadvertit, sciscitanti causam apud Cæcinam Tuscum epulari multos, præcipuum honore Junium Blæsum nuntiatur, cetera in majus, de apparatu et solutis in lasciviam animis, nec defuere qui Tuscum ipsum et alios, sed criminosius Blæsum incusarent, quod ægro principe lætos dies ageret, ubi asperatum Vitellium et posse Blæsum perverti patuit iis, qui principum offensas acriter speculantur, datæ L. Vitellio delationis partes, ille infensus Blæso æmulatione prava quod eum omni dedecore maculosum egregia fama anteibat, cubiculum imperatoris reserat, filium ejus sinu complexus et genibus accidens. Causam confusionis quærenti, non se proprio metu nec sui anxium, sed pro fratre, pro liberis fratris preces lacrimasque attulisse. frustra Vespasianum timeri, quem tot Germanicæ legiones, tot provinciæ virtute ac fide, tantum denique terrarum ac maris immensis spatiis arceat; in urbe ac sinu cavendum hostem, Junios Antoniosque avos jactantem, qui se stirpe imperatoria, comem ac magnificum militibus ostentet. Versas illuc omnium mentes, dum Vitellius amicorum inimicorumque negligens fovet æmulum principis labores e convivio prospectantem reddendam pro intempestiva lætitia mœstam et funebrem noctem, qua sciat et sentiat vivere Vitellium et imperare, et si quod fato accidat, filium habere. Trepidanti inter seclus metumque, ne dilata Blæsi mors maturam perniciem, palam jussa atrocem invidiam ferret, placuit veneno grassari. Addidit facinori fidem notabili gaudio, Blæsum visendo. Quin et audita est sævissima Vitellii vox, qua se (ipsa enim verba referam) pavisse oculos spectata inimici morte jactavit. Blæso super claritatem natalium et elegantiam morum fidei obstinatio fuit. Integris quoque rebus a Cæcina et primoribus partium jam Vitellium aspernantibus ambitus abnuere perseveravit. Sanctus, inturbidus, nullius repentini honoris, adeo non principatus appetens, parum effugerat, ne dignus crederetur.

1. Give some account of the various enactments at Rome against bribery at elections, especially of that under which Plancius was prosecuted.

2. Explain the derivation and meaning of the words diribitio, diribere. Translate also the following clause:—Sublata sunt studia, exstinctæ suffragationes, nullæ contentiones, nulla libertas populi in mandaudis magistratibus nulla exspectatio suffragiorum. *Appendix, No. 2.* Sessional Examinations.

3. Translate and explain:—Consuli P. Nasicæ præco Granius medio in foro, quum ille edicto justitio domum decedens Granium rogasset, quid tristis esset. au quod rejectæ auctiones essent?—immo vero, inquit, quod legationes.—Idem tribuno plebis, potentissimo homini, M. Druso, sed multa in re publica molienti, quum ille eum salutasset, ut fit, dixissetque, Quid agis, Grani? respondit Immo vero tu, Druse, quid agis?

Translate into Latin prose:—

The true art of being agreeable is to appear well pleased with all the company, and rather to seem well entertained with them, than to bring entertainment to them. A man thus disposed perhaps, may not have much learning, nor any wit; but if he has common sense, and something friendly in his behaviour, it conciliates men's minds more than the brightest parts without this disposition; and when a man of such a turn comes to old age, he is almost sure to be treated with respect. It is true indeed that we should not dissemble and flatter in company; but a man may be very agreeable, strictly consistent with truth and sincerity, by a prudent silence, where he cannot concur, and a pleasing assent where he can. Now and then you meet with a person so exactly formed to please, that he will gain upon every one that hears or beholds him; this disposition is not merely the gift of nature, but frequently the effect of much knowledge of the world, and a command over the passions.

Translate into Latin verse:—

There lies a vale in Ida, lovelier
Than all the valleys of Ionian hills.
The swimming vapour slopes athwart the glen,
Puts forth an arm, and creeps from pine to pine,
And loiters, slowly drawn. On either hand
The lawns and meadow-ledges midway down
Hang rich in flowers, and far below them roars
The long brook falling thro' the clov'n ravine
In cataract after cataract to the sea.

Translate:—Tacitus—*Ann.* II., 82.

At Romæ, postquam Germanici valetudo percrebruit, cunctaque ut ex longinquo aucta in deterius adferebantur, dolor, ira, et erumpebant questus, ideo nimirum in extremas terras relegatum, ideo Pisoni permissam provinciam; hoc egisse secretos Augustæ cum Plancina sermones. Vera prorsus de Druso seniores locutos: displicere regnantibus civilia filiorum ingenia neque ob aliud interceptos, quam quia populum Romanum æquo jure complecti reddita libertate agitaverint, hos vulgi sermones audita mors adeo incendit, ut ante edictum magistratuum, ante senatus consultum sumpto justitio desererentur fora clauderentur domus. Passim silentia et gemitus, nihil compositum in ostentationem: et quamquam neque insignibus lugentium abstinerent, altius animis mærebant forte negotiatores, vivente adhuc Germanico Suria egressi, lætiora de valetudine ejus attulere. Statim credita statim vulgata sunt,

Appendix, No. 2.

Sessional Examinations.

ut quisque obvius, quamvis leviter audita in alios atque illi in plures cumulata gaudio transferunt, cursant per urbem, moliuntur templorum fores; juvat credulitatem nox et promptior inter tenebras adfirmatio. Nec obstitit falsis Tiberius donec tempore ac spatio vanescerent.

FIRST YEAR'S STUDENTS.

Translate :—

TERENCE.—*Adelphi*, Act III., Scene III., 46–77.

Demea—Syrus.

De. Quid eum? vidistin hodie? *Sy.* Tuumne filium?
Abigam hunc rus, jamdudum aliquid ruri agere arbitror.
De. Satin' scis ibi esse?' *Sy.* Oh, quem egomet produxi. *De.* Optume 'st.
Metui ne hæreret hic. *Sy.* Atque iratum admodum.
De. Quid, autem? *Sy.* Adortus jurgis est fratrem apud forum
De psaltria hac.' *De.* Ain 'vero? *Sy.* Vah, nil reticuit.
Nam, ut numerabatur forte argentum, intervenit
Homo de improviso: cœpit clamare, "O, Æschine,
Hæcine flagitia facere te? hæc te admittere
Indigna genere nostro?" *De.* Oh, lacrumo gaudio.
Sy. "Non tu hoc argentum perdis, sed vitam tuam."
De. Salvos sit; spero erit similis majorum suum. *Sy.* Hui.
De. Syre, præceptorum 'st plenus istorum ille. *Sy.* Phy.
Domi habuit, unde disceret. *De.* Fit sedulo
Nil prætermitto: consuefacio: denique,
Inspicere, tanquam in speculum, in vitas omnium
Jubeo: atque ex aliis sumere exemplum sibi.
"Hoc facito." *Sy.* Recte sane. *De.* "Hoc fugito." *Sy.* Callide.
De. "Hoc laudi est." *Sy.* Istæc res est. *De.* "Hoc vitio datur."
Sy. Probissume. *De.* Porro autem. *Sy.* Non hercle otium 'st
Nunc mi auscultandi: pisces ex sententia
Nactus sum: hi mihi ne corrumpantur, cautio 'st:
Nam id nobis tam flagitium 'st, quam illa, o Demea,
Non facere vobis, modo quæ dixti: et, quod queo,
Conservis ad eundem istunc præcipio modum:
Hoc salsum 'st, hoc adustum 'st, hoc lautum 'st parum:
Illud recte: iterum sic memento: sedulo
Moneo, quæ possum pro mea sapientia:
Postremo, tanquam in speculum, in patinas, Demea,
Inspicere jubeo, et moneo, quid facto usus sit.
Inepta hæc esse, nos quæ facimus, sentio:
Verum quid facias? ut homo 'st, ita morem geras.

VIRGIL.—*Georgics*, III., 75.

Continuo pecoris generosi pullus in arvis
Altius ingreditur, et mollia crura reponit;
Primus et ire viam et fluvios tentare minaces
Audet et ignoto sese committere ponti,
Nec vanos horret strepitus. Illi ardua cervix,
Argutumque caput, brevis alvus, obesaque terga,
Luxuriatque toris animosum pectus. Honesti
Spadices glaucique: color teterrimus albis

Et gilvo. Tum si qua sonum procul arma dedere,
Stare loco nescit, micat auribus, et tremit artus,
Collectumque fremens volvit sub naribus ignem.
Densa juba, et dextro jactata recumbit in armo;
At duplex agitur per lumbos spina; cavatque
Tellurem, et solido graviter sonat ungula cornu.

Translate into Latin prose:—

Tyre was taken after a siege of seven months; a city famous in the recollection of posterity, as well for the antiquity of its origin as the many vicissitudes of its fortunes. Built by Agenor, it was long the mistress of the sea, not in its own neighbourhood only, but wherever its fleets appeared; and if tradition may be believed, this people were the first who acquired or disseminated learning. Be that as it may, their colonies extended over almost the whole world—Carthage, in Africa, Thebes, in Bœotia; Gades, on the ocean. Probably in their voyages across the open sea, and their frequent visits to lands unknown to others, they selected settlements for their young and overflowing population; or, as their people at home were troubled by constant earthquakes, they were compelled to acquire by conquest new and distant habitations. Still, after passing through many reverses, and reviving again after its destruction, it now enjoys repose under the shelter of Roman civilization.

Translate:—

LIVY, xxvi., 45.

Inter hæc repleverat Pœnus armatis muros, et vis magna, ex ingenti copia congesta, telorum suppeditabat. Sed neque viri, nec tela, nec quidquam aliud æque, quam mœnia ipsa sese, defendebant. Raræ enim scalæ altitudini æquari poterant: et, quo quæque altiores, eo infirmiores erant. Itaque, quum summus quisque evadere non posset, subirent tamen alii, onere ipso frangebantur. Quidam stantibus scalis, quum altitudo caliginem oculis obfudisset, ad terram dilati sunt. Et quum passim homines scalæque ruerent, et ipso successu audacia atque alacritas hostium cresceret; signum receptui datum est; quod spem non præsentis modo ab tanto certamine ac labore quietis obsessis, sed etiam in posterum dedit; scalis et corona capi urbem non posse. Opera et difficilia esse, et tempus datura, ad ferendam opem, imperatoribus suis. Vix prior tumultus conticuerat, quum Scipio ab defessis jam vulneratisque recentes integrosque alios accipere scalas jubet, et vi majore adgredi urbem, ipse, ut ei nunciatum est, æstum decedere, quod per piscatores Tarraconenses, nunc levibus cymbis, nunc, ubi eæ siderent, vadis pervagatos stagnum, compertum habebat, facilem pedibus ad murum transitum dari, eo secum armatos duxit. Medium ferme diei erat: et ad id quod sua sponte cedente in mare æstu, trahebatur aqua, acer etiam Septentrio ortus inclinatum stagnum eodem quo æstus ferebat, et adeo nudaverat vada, ut alibi umbilico tenus aqua esset, alibi genua six superaret. Hoc, cura ac ratione compertum, in prodigium ac Deos verteus Scipio, qui ad transitum Romanis mare verterent, et stagno auferrent, viasque ante nunquam initas humano vestigio aperirent, Neptunum jubebat ducem itineris sequi, ac medio stagno evadere ad mœnia.

(1). Write a short memoir of the Scipio named in the preceding extract.

(2). Give some account of the chief authorities from whom Livy derived the materials for his history, especially the part relating to the second Punic war.

Appendix, No. 2.

Sessional Examinations.

MATHEMATICS.

THIRD YEAR'S STUDENTS.

1. State the test of the accordance of two solutions of a differential equation, each involving an arbitrary constant.

2. If the differential equation $Mdx+Ndy=0$ be homogenous, how may it be integrated? Integrate the equations

$$(x-\sqrt{xy}-y)\,dx+\sqrt{xy}\,dy=0.$$

3. Integrate $(1-x^2)\frac{d^2}{dx}-xz=axz^n$, also $2z^2\frac{dz}{dx}-ax^3=x+1$.

4. Integrate the equation $y=xf(p)+F(p)$.

5. Integrate the equation—

$$\frac{d^2y}{dx^2}+n^2y=\cos nx\text{; also }\frac{d^2z}{dx^2}\pm c^2-\frac{m(m+1)}{x^2}z=0,$$

and reduce to this last form the equation

$$\frac{d^2z}{dx^2}+2f(x)\frac{dz}{dx}+\left\{f(x)^2+f'(x)\pm c^2-\frac{m.\overline{m+1}}{x^2}\right\}2=0.$$

6. Find an expression for the angle between the two planes, whose equations are $Ax+By+Cz+D=0$, $A'x+B'y+C'z+D'=0$.

7. Find the equation of the plane passing through the given point $x'y'$, and through the intersection of the two planes mentioned in question 6.

8. What is the nature of the surface represented by

$$(Ax+By+Cz+D)\,(A'x+B'y+C'z+D')=A''x+B''y+C''z+D''?$$

9. If two surfaces of the second degree have *one* plane section in common, they must also have *another* in common: prove this.

10. Prove that the equations of the class of surfaces generated by a straight line, which moves according to any law parallel to a given plane $Ax+By+Cz=0$, are $\frac{Cq+B}{Bp-Aq}=\phi(Ax+By+Cz)$, $\frac{Cp+A}{Bp-Aq}=\psi(Ax+By+Cz)$, and show that the equation of conoïdal surfaces—a particular case, is $\frac{x-(az+\alpha)}{y-(bz+\beta)}=\phi(Ax+By+Cz)$, the equations of the directrix being $x=az+a$, $y=bz+\beta$.

SECOND YEAR'S STUDENTS.

1. Through four given points two parabola can in general be described; prove that if the four points lie on a circle, the axis of the two parabolæ will be at right angles to each other.

2. The equation of a parabola being referred to a tangent, and the diameter through the point of contact, its form is $y^2=p'x$; prove that p' is equal to the focal chord drawn parallel to the tangent.

3. If from the focus of a conic a line be drawn intersecting any tangent at a given angle; find the locus of the point of intersection.

4. The three sides of a triangle are given, two of its base angles move along two fixed lines; find the locus of the third angle.

5. If $u=\sin^{-1}\left\{\frac{(a-b)^{\frac{1}{2}}x}{(a(1+x^2))^{\frac{1}{2}}}\right\}$; find $\frac{du}{dx}$.

If $u=\log(x+\{x^2-a^2\}^{\frac{1}{2}})+\sec^{-1}\frac{x}{a}$; find $\frac{du}{dx}$.

6. Find the values of—

$$\int \frac{dx}{\cos^2 x \sin x}, \quad \int \frac{a \cos x + b \sin x}{a' \cos x + b' \sin x} dx, \quad \int \frac{dx}{(x-1)^2(x^2+4)(x-3)}.$$

7. Find the maximum and minimum values of $\frac{(x-1)^2}{(x+3)^3}$.

8. Show by direct integration, that

$$\int \frac{dx}{(1+x)(1+x-x^2)^{\frac{1}{2}}} = \tan \frac{1+3x}{2(1+x-x^2)^{\frac{1}{2}}}.$$

FIRST YEAR'S STUDENTS.

1. Given of a plane triangle its vertical angle, its base, and the ratio of the other two sides construct it.

2. Solve the following equations:—

$x^3-7x^2+14x-8=0$, which has two roots, the difference of which is 2.

$x^4-5x^3+5x^2+5x-6=0$, which has two roots equal with opposite signs.

$x^4-8x^3+23x^2-28x+12=0$, which has two roots equal with same sign.

3. Sum the following series to n terms :—

$$\sin \alpha + \sin(\alpha+\delta) + \sin(\alpha+2\delta) \ldots\ldots \sin(\alpha+\overline{n-1}\delta).$$

The result is $\dfrac{\sin\left(\alpha+\frac{n-1}{2}\delta\right)\sin\frac{n}{2}\delta}{\sin\frac{1}{2}\delta}$.

4. Eliminate θ between the two equations :—

$$x=2\cos\theta+\cos 2\theta, \quad y=2\sin\theta+\sin 2\theta.$$

The result is $x^2+y^2-1=2\{(x+1)^2+y^2\}^{\frac{1}{2}}$.

Also between the two equations :—

$$x\sin\theta+y\cos\theta=\frac{1}{2}\sin 2\theta, \quad x\cos\theta-y\sin\theta=\cos 2\theta.$$

The result is $x^{\frac{2}{3}}+y^{\frac{2}{3}}=1$.

5. Deduce expressions for calculating the radii of the four circles which touch the three sides of a triangle, the lengths of the sides of which are given.

6. In a spherical triangle ABC, if the angle C be 90°, and β denote the distance of C from the middle point of c, and p the distance of C from c; prove that—

$$\sin^2\beta=\sin^2\frac{c}{2}(\sin^2 A+\sin^2 B)=\sin^2\frac{c}{2}(1+\sin^2 p).$$

7. In *any* spherical triangle if θ denote the angle between the bisector of the angle C and the perpendicular from C on c; prove that—

$$\tan\theta=\cot\frac{1}{2}C\,\frac{\sin(a-b)}{\sin(a+b)}.$$

8. Establish the formula for determining the angle between the two lines represented by $Ax+By+C=0$, $A'x+By+C'=0$.

9. Find the equation of a line passing through the fixed point x', y', and making an angle of 60° with the line represented by the equation

$$Ax+By+C=0.$$

Appendix, No. 2.

Sessional Examinations.

10. Given the angles of a triangle A and B; one vertex A is fixed, another B moves along a fixed straight line; find either analytically or geometrically the locus of the third vertex.

---

1. Prove that "on the same base, and on the same side of it, there cannot be two triangles which have their sides, which are terminated in one extremity of the base equal to one another, and likewise those which are terminated in the other extremity."

2. Prove that "if a straight line be bisected, and produced to any point, the rectangle contained by the whole line thus produced, and the produced part, together with the square on half the line bisected, is equal to the square on the line which is made up of the half and the produced part."

3. Prove that "the angles in the same segment of a circle are equal."

4. Find a mean proportional between two given lines.

5. Solve the following equations:—

$$\frac{8-x}{6}+x-1\tfrac{1}{3}=\frac{x+6}{2}-\frac{x}{3}, \quad \frac{5x-3}{7}-\frac{9-x}{3}=\frac{5x}{2}+\frac{19(x-4)}{6}.$$

6. Solve the following quadratic equations:—

$$\frac{x+1}{7}+\frac{x(x-2)}{21}=x-\frac{24}{7}, \quad x=3+\frac{5}{4x}.$$

7. Find the sum of ten terms of each of the series, 3, 7, 11, &c.; 2, 6, 18, &c.

8. Find the greatest common measure of $x^2+8x+15$, and $x^2+9x+20$; also of $2x^4-6x^3+3x^2-3x+1$ and $x^7-3x^6+x^5-4x^2+12x-4$.

9. Expand, by *the binomial theorem*, the following expressions:—

$$(2x+3)^4; \quad (1+3x+2x^2)^3.$$

10. If $\sin A=\frac{2}{3}$, find cos A, tan A, cot A, sec A, cosec A.

11. Prove the following formulæ:—

$$\sin 2A=2 \sin A \cos A, \cos 2A=\cos^2 A-\sin^2 A=2\cos^2 A-1=1-2\sin^2 A.$$

$$a^2=b^2+c^2-2bc \cos A.$$

12. Find the numerical values of sin 30°, cos 30°, sin 15°, cos 15°.

MIXED MATHEMATICS.—*Examiner, Professor Curtis*, M.A.

THIRD YEAR'S STUDENTS.

MECHANICS.

1. Deduce the following properties of the curve assumed by a heavy homogeneous rope fixed at its two extremities:—

(α). Its radius of curvature is equal to the normal.

(β). Its evolute is the tractrix.

(γ). It is the roulette generated by the focus of a parabola rolling on a straight line.

2. Prove, from the principle of virtual velocities, that if a material particle rest in equilibrio on a smooth surface, the total acting force is perpendicular to the surface.

3. A homogeneous finite bar attracts according to the law of nature, prove that the "surfaces of equilibrium" are ellipsoids, and "the lines of force" hyperbolæ.

4. A homogeneous bar rests with its two extremities pressing against the concave surface of an ellipsoid of revolution round its major axis, supposed vertical; determine its position of equilibrium.

5. A body describes a central conic under the action of a force whose direction is constant; find the law of force.

6. A body describes an orbit round a centre of force; establish the following formulæ:—

$$pds=hdt=r^2d\pi,\ v^2=F\frac{c}{2},\ Fdr=\frac{h^2}{2}d\left(\frac{1}{p^2}\right),$$

$$\frac{d^2u}{d\pi^2}+\frac{F}{u+h^2u^2}=0.$$

7. Find the law of force corresponding to an elliptic orbit described round a centre of force situated anywhere in the plane of the orbit.

8. State in what cases the principle of *vis viva* ceases to be applicable, and show accurately why it fails in each case.

Hydrostatics.

9. Deduce the general equations of equilibrium for a gas and a liquid respectively.

10. A cube floats in water with one angle immersed; determine its position of equilibrium.

11. A cube filled with a liquid is held with a diagonal vertical; find the centre of pressure of one of the lower faces, and the total pressure on it.

12. A paraboloidal vessel, the axis of which is vertical, is filled with a liquid and set rotating round its axis; find what must be the velocity of rotation that all the liquid may flow over the edge of the vessel.

SECOND YEAR'S STUDENTS—SENIOR CLASS.

Mixed Mathematics.

Mechanics.

1. If a waggon weighing 2 tons 14 cwt. rest upon an incline of 1 in 27, find the pressure on the road, and determine the least value of the coefficient of friction consistent with equilibrium.

2. A heterogeneous sphere is placed between two rough inclined planes which intersect in a horizontal line; find its limiting positions of equilibrium.

3. From a cone whose height is 8 inches a similar cone whose height is 4 inches, is cut by a plane parallel to its base; what is the distance, from the base, of the centre of gravity of the remaining portion?

4. A stone can fall from a certain height in ·10 seconds, if it be arrested at the end of 8 seconds, and afterwards let fall; how long will it be in descending through the rest of the distance?

5. Find the straight line of quickest descent from a given point to a circle situated in the same vertical plane as the point; also, from one circle to another, both being situated in the same vertical plane.

6. A heavy ball is projected horizontally with a velocity V; determine its position, its velocity, and the direction of its motion after t seconds.

Appendix, No. 2.

Sessional Examinations.

HYDROSTATICS.

7. The centre of gravity of a self-acting rectangular sluice-gate is situated on the horizontal axis round which it is free to move, this axis divides the sides, which are vertical when the gate is closed into segments a_1, a_2 (a_2 being the lower segment); if H denote the height of the water above the axis when the sluice is on the point of opening or closing, prove that—

$$H=\frac{2}{3}\left(\frac{a_1^2+a_2^2-a_1 a_2}{a_2-a_1}\right).$$

8. A globe 2 feet in diameter, floating in a liquid whose specific gravity is 1·5, is half immersed; find its weight.

9. Determine rigorously the force necessary to work an ordinary suction pump.

OPTICS.

10. A pencil of rays diverges from an object whose length is $\frac{1}{10}$ inch, placed at the distance of 10 feet from a convex mirror of 10 inches radius; find the position and magnitude of the image.

11. Establish the following formula for their lenses:—

$$\frac{1}{d}-\frac{1}{D}=(m-1)\left(\frac{1}{r}-\frac{1}{r'}\right).$$

This formula will reproduce itself if we change—

1° r into—r', and r' into—r

2° r into—r', r' into—r, D into—d, and d into—D.

Give the physical meaning of each of these substitutions.

12. Describe the various kinds of telescopes with which you are acquainted.

EXPERIMENTAL PHYSICS.

1. Explain the principle of the Artesian well.

2. How may it be experimentally proved that the principle of Archimedes is applicable to gases?

3. Enumerate the various corrections to be applied to the readings of the water barometer, and the mercurial barometer respectively, stating with regard to *each* correction in *each* case whether its amount is to be added or subtracted.

4. Mention some of the methods by which it may be shown that the transmission of sound is attended by vibrations in the particles of the body which transmits it.

5. Describe the construction and uses of Leslie's differential thermometer.

6. Describe the three ordinary thermometric scales, and show how, from the reading on any one scale, the corresponding readings for the other two may be found.

7. Describe an experiment by which it may be shown that water is a bad conductor of heat, and explain why in heating a liquid it is desirable to apply the source of heat *under* the vessel containing the liquid.

8. State what is meant by the *latent heat of fusion*, and describe how its measure may be obtained.

9. How is the motion in Hero's engine produced? what hydrodynamical engine is based on the same principle?

10. Describe Wheatstone's photometer, and the mode of using it.
11. State how it may be shown that there are *two* kinds of electrical excitations, and give the two theories proposed to explain the fact.
12. Describe the principal kinds of galvanic batteries.

MIXED MATHEMATICS.—*Examiner, Professor Curtis,* M.A.

SECOND YEAR'S STUDENTS—JUNIOR CLASS.

MECHANICS.

1. A force of 10 lbs. is resolved into two, which make with its direction angles respectively of 30° and 60°; calculate the two components.
2. Resolve a force of 700 lbs. into two concurrent parallel forces acting at distances from it of 17 inches and 3 inches respectively.
3. The length of each of the sides of a solid equilateral triangle is 8 inches; find the distance, from one of its angles, of the centre of gravity of the triangle.
4. Describe the uses of Attwood's machine.
5. State the law of centrifugal force, and describe the various experiments for illustrating the law.
6. Find the time in which a body falling from rest will acquire a velocity of 160 feet per second.

HYDROSTATICS.

7. In determining the proportions in which two known bodies are mixed together to form another body, the specific gravity of which is given, what physical assumptions are made? mention cases in which these assumptions would not be correct.
8. Describe *accurately* the principle of the syphon, and show that a syphon will not act if the bend of it be a certain height above the level of the liquid to be drawn off. If the liquid be water, determine the corresponding height.
9. What is the atmospheric pressure per square inch when the mercurial barometer stands at 30 inches, the specific gravity of mercury being 13·6?

OPTICS.

10. Find the principal focus of a spherical reflector:—

1st, when it is convex;
2nd, when it is concave.

11. Prove that for concave lenses the focal length is positive, and for convex lenses negative; and give the physical meaning of the algebraic sign *in each case.*
12. Find the focal length of a double concave lens of glass, the radius of each surface being 3 inches, and the index of refraction of glass being $\frac{3}{2}$.

EXPERIMENTAL PHYSICS.

1. Point out where the several assumptions are made in determining specific heat by *the method of cooling.*
2. Define the *dew-point* and the *degree of humidity* of the air, and explain the various methods for determining them.
3. How are the apparent exceptions to Coulomb's law accounted for by De la Rive?

Appendix, No. 2.

Sessional Examinations.

4. Explain *accurately* the various means employed for determining the intensity, and variations in the intensity, of the earth's magnetic force.

5. In determining the magnetic dip by the most accurate method, what function is the *true* dip of the *two* observed ones?

6. How may the magnetic meridian be determined by means of the *dip* needle with a single observation? with two observations?

7. Assuming Ampere's law, deduce the law for discriminating between the poles of a bar of soft or hard iron magnetised by a helical current, and show that the polarity of the helix and of the magnet are similar.

8. An indefinitely extended galvanic current acts on a magnetic needle free to revolve round a vertical axis passing through its middle point; show that, if the circle in which the poles move pass through the current, the needle will rest in all positions.

9. Explain the use of the condenser in Ruhmkorff's coil.

10. A number of galvanic elements all similar being given, arrange them so as to have maximum effect.

APPLIED MECHANICS, &c.—*Examiner, Professor Curtis*, M.A.

THIRD YEAR'S STUDENTS.

1. Prove that the total work done by a force acting in any direction on a heavy body moving uniformly up an inclined plane is equal to the sum of the work done against friction, and that done against gravity.

2. Required the work done in raising 3 cwt. of coals from a pit whose depth is 20 fathoms, the circumference of the rope being 2 inches; allowing that the weight of 1 foot of rope of the same material and 1 inch in circumference is ·046 lbs.

3. What must be the effective horse-power of a locomotive engine which moves at the steady rate of 30 miles per hour upon a level rail, the weight of the train being 50 tons, the friction 8lbs. per ton, and the total resistance of the air to the train, when moving at the rate of 10 miles per hour, being 33lbs.

4. A cistern is 7 feet long, 5 feet broad, and 6 feet deep; in what time will a man, performing 2,600 units of work per minute, fill the cistern with water from a well, the constant level of the water in which is 37 feet below the base of the cistern, by means of a pump, the modulus of which is ·66?

*5. In what time will a pumping-engine of 4 horse-power fill a cistern which is 12 feet long, 9 feet broad, and 8 feet deep, from a well 20 feet square, supposing the level of the water in the well, when the engine begins to work, to be 40 feet below the base of the cistern, and that no water flows into the well during the process?

*6. When a perfect machine, worked by a waterfall, is employed to raise some of the available water above its superior level, show that it is unimportant whether the water be pumped from the higher or the lower level, but that, if the machine be imperfect, it is preferable to pump the water from the higher level.

7. How many cubic feet of water would be required to drive a water-wheel of 2 effective horse-power, the height of the fall being 20 feet, and the modulus of the wheel ·68?

8. The area of the piston of a high-pressure steam-engine is 500 square inches, the length of its stroke 4 feet, and the number of strokes per minute 15; what must be the pressure of the steam so that the horse-power of the engine may be 20?

*9. Determine the shut-off in an engine, which is otherwise given, when the maximum amount of work is performed by steam of given pressure.

*10. Establish the formula for the velocity ratio in link-work.

11. Deduce from the principle of work the formulæ which connect the power and the weight:—

(*a*). In the simple wheel and axle.
(*b*). In the compound wheel and axle.
(*c*). In the rack and pinion; in the various systems of heavy pulleys.

*12. Find what relation must exist between the curves which bound two wheels moving each round a fixed axis, in order that they may roll perfectly on one another.

N.B.—Special credit will be given for answers to the questions marked thus.*

METAPHYSICS.—*Examiner, Professor Moffett,* LL.D.

1. Define Psychology, Metaphysics, Ontology. Enumerate in chronological order the most eminent metaphysicians, British and Continental, from the 17th century to the present day, noticing their principal works.

2. Give the most remarkable classifications of mental phenomena, and your preference, with reasons.

3. What are the faculties of human knowledge, according to Kant and to Hamilton?

4. Classify the senses. The ordinary division is inadequate?

5. What was the Molyneux problem? How do we acquire our knowledge of distance and magnitude?

6. Explain precisely what is meant by the doctrine that space and time are "forms of the sensibility." What may be said for and against it? Give the views of Newton, Clarke, and Leibnitz, respecting space and time.

7. Give an account of the faculty of imagination.

8. Define and classify the emotions.

9. Classify the feelings.

10. Define association; state its fundamental laws, and the reduction of them by Hamilton. State also and examine the association theory of beauty.

11. How have the qualities of body been classified? Give Hamilton's account of the matter.

12. How do the theories of pre-established harmony and occasional causes differ? What is their common origin? Refute them.

13. Give Hamilton's tabular view of the various theories as to the principle of causality, naming the representative of each, and specially noticing his own view.

14. How did Descartes define and endeavour to prove innate ideas? Give Locke's definition and arguments on the same subject.

15. State and examine Descartes' proof of an external world and of the existence of God.

16. What was the doctrine of Spinosa? How may it be refuted?

17. Give the date of Locke's Essay, and sketch the method of the work. Give his definitions of substance, knowledge, moral good. Who have been his most eminent critics?

18. Give the date of Kant's Kritik. State the primary question, the central principle, and the great inconsistency of his philosophy. How did he prove the freedom of man?

Appendix, No. 2.

Sessional Examinations.

ENGLISH LITERATURE.—*Examiner, Professor Moffett*, LL.D.

1. Mention and criticise briefly some of the principal definitions of *poetry*.

2. Sketch rapidly the course of English poetry from Chaucer to our day, confining yourself to the leading names, and indicating the succession of schools or styles, briefly characterising each.

3. What is the chronological order adopted by Hallam in the arrangement of Shakespeare's plays?

4. Omitting Shakespeare, mention the names and the chief works of the dramatists of the period from 1580 to 1660. Characterise the genius of Ben Jonson.

5. Name, in chronological order, the chief English prose-writers down to the end of the reign of James I.; mentioning the titles of their most important works; and add some remarks on the characteristics of earlier, as compared with later, English prose.

6. Give as many thoughts as you can from writers who flourished in the century ending with 1688—the thoughts to be remarkable for beauty or force.

7. Give an account of those writings of Dryden which have relation to the political and religious controversies of his time, adding dates.

8. Trace the history of the English prose-literature of the 18th century, characterising briefly all the more eminent writers.

9. Enumerate the principal works, and characterise and illustrate the genius of Wordsworth.

10. Enumerate the principal writers of sonnets in the English language, mentioning when each lived, and stating generally the nature and amount of his contributions to this department of literature.

11. Whom do you reckon the greatest English poet of the 19th century? justify your preference by argument and quotation.

12. For what works, and on what subjects, are the following writers known:—Churchill, Lydgate, Parnell, Langland, Gifford, Hobbes, Keats, Drayton, Wilson, Sir Thomas Browne, Marvel, Southwell? In whose reigns did they severally live?

ENGLISH LITERATURE.—*Examiner, Professor Moffett*, LL.D.

1. Give the date of the Canterbury Tales, and explain the following passages:—

(*a.*) "Ful often time he hadde the bord begonne
Aboven alle nations in Pruce."

(*b.*) "An housholder, and that a grete was he,
Seint Julian he was in his contree."

2. Give the date of Macbeth, and explain the following passages, quoting the context and noticing any variations of the text:—

(*a.*) "With Tarquin's ravishing strides towards his design
Moves like a ghost."

(*b.*) —— "Upon this bank and shoal of time."

(*c.*) "And Fortune on his damned quarry smiling."

(*d.*) (*Macb.*) "There's blood upon thy face.
(*M.*) 'Tis Banquo's, then.
(*Macb.*) 'Tis better thee without, than he within."

3. Give the date of Pope's "Essay on Criticism." How is the work divided? What is its general character? Quote the references to Dryden and Roscommon.

ENGLISH LANGUAGE.—*Examiner, Professor Moffett,* LL.D.

1. Draw up a table of the various national languages now spoken in Europe, with reference both to their classification according to *family* and *branch*, and to their geographical distribution.

2. Describe the Anglo-Saxon invasions of Britain. What inference may be drawn from the fact that the invaders called the country *Englaland*, and their language *Englise?*

3. The word "French" taken by itself would mislead as to the history of the language bearing that name?

4. When must the language of *Oc* have become known at the English court?

5. Explain the view of the history of the English language, which regards its successive changes as marked by changes in the vowel-endings of the noun and verb.

6. Compare the successive stages in the history of the language with those in the growth of the human being, adding the duration of each stage.

7. Give an account of the chronicles of Robert of Gloucester and Robert de Brunne as to subject, structure, and date.

8. What document, and of what date, is usually given as the earliest specimen of English?

9. Define and exemplify the "continuous style," and the "reflex style." By what other name is the "reflex style" known?

10. Give the derivations of the following words:—*bride, garter, leather, mutton, parsley, by-law, esquire, poltroon, saunterer, amerced, treacle.*

11. Sketch the life of Milton, and enumerate his works, giving as many dates as you can.

12. Sketch the course of action in the first book of the "Paradise Lost," adopting as largely as you can the language of the original.

13. Quote and explain Milton's allusion to Arthur, to Charlemagne, and to the irruption of the barbarians of the north.

14. Explain the following passages:—

I. —— "Since our present lot appears
For happy though but ill, for ill not worst,
If we procure not to ourselves more woe."

II. —— "we are at worst
On this side nothing."

15. How often does Milton use the word *its?*

16. Quote as many classicisms (both of vocabulary and of structure) as you can from Milton.

17. For what works, and on what subjects, are the following writers known:—Spenser, Bacon, Dryden, Pope? In whose reigns did they severally flourish?

18. Compare the English of Chaucer with the English of the present day.

HISTORY.—*Examiner, Professor Moffett,* LL.D.

1. Define History; and specify the chief sources of History. Illustrate Dr. Arnold's remark:—"Geology and Physiology are closely connected with History."

2. Into what great periods may Universal History be divided? Who has been called "the first hero of authentic Universal History?" What nation led the march of the general historic evolution?

108780

Appendix, No. 2.

Sessional Examinations.

3. Can there be a *Science* of History? What distinctions have been drawn between the Science and the Philosophy of History? Name the principal writers on the Philosophy of History. What was Vico's historical theory?

4. Name the most eminent of the Rhyming Chroniclers. Enumerate with dates the principal historical works that have appeared in England from A.D. 1600 to 1850.

5. Give an account of the settlements of the Jutes, the Angles, and the Saxons in England; and describe the principal Anglo-Saxon institutions.

6. Give a brief account of the Feudal System. In what respects did the Anglo-Norman Feudalism differ from the French?

7. Give with dates the leading events of the Crusades; and state the moral and social causes and effects of these expeditions.

8. When was the succession to the English Crown made to depend on primogeniture? Enumerate all the cases of succession to the English throne since the Norman Conquest, in which the hereditary rule, as now observed, has been departed from.

9. In what two celebrated arbitrations was Edward I. engaged? Describe the circumstances which led to them and their results.

10. State precisely and estimate the claim of Edward III. to the Crown of France; and enumerate the principal events of his French wars?

11. From what two sons of Edward III. did the rival houses of York and Lancaster derive their descent? Enumerate with their dates the principal battles in the Wars of the Roses.

12. Specify the battles of the great Civil War.

13. Give a brief account of Strafford's trial; and quote Hallam's judgment on the case.

14. State the origin and trace the progress of the National Debt.

15. Trace the descent of the House of Hanover from the House of Tudor.

16. Explain who the Emperor Charles V. was by descent; and thence account for the extent of his dominions. State to whom these severally fell after his time.

17. Give a summary account of the successive dynasties of French kings from Clovis to Louis XVI.

18. What were the three great objects of the policy of Richelieu?

19. With what remarkable events or transactions in English History are the following names associated:—Thomas à Becket, Stephen Langton, Simon de Montfort, Thomas Cromwell, Prince Rupert, Algernon Sidney, Sir William Temple, Admiral George Byng, Admiral John Byng, John Wilkes.

20. Give the date and substance of—(*a.*) the Constitutions of Clarendon; (*b.*) the Provisions of Oxford; (*c.*) the Statute of Mortmain; (*d.*) Poynings' Law; (*e.*) the Petition of Right; (*f.*) the Test Act; (*g.*) the Act of Settlement; (*h.*) the Act for the Resumption of Cash Payments.

21. When, and between whom, were fought the following battles (which are not here set down in chronological order):—Assaye, Zama, Bunker's Hill, Culloden, Austerlitz, Angora, Minden, Malplaquet, Leipsic, Pydna, Plassey, Halidon Hill, Chillianwallah?

SENIOR CLASS.

LOGIC.—*Examiner, Professor Moffett,* LL.D.

1. State fully what had been done for the science of Logic before the time of Aristotle.

2. Whately's definition of Logic has been objected to as too narrow, and Mill's as too wide; on what grounds?

3. How does Bacon distinguish his Organum from that of Aristotle? Mansel also points out three essential distinctions?

4. What is the aim of science, according to Bacon? What errors does Mill point out in Bacon's view of Induction?

5. On what principle is the classification of Predicables based? Compare Thomson's classification with those of Aristotle and Porphyry. What did Aristotle mean by saying that "Difference is of the nature of genus?"

6. Draw up a table of Opposition of Judgments according to Thomson. Assuming in succession the *falsehood* of A, E, I, and O, give a summary of the inferences that may be drawn respecting the opposed propositions in each case.

7. What are the *uses* of Conversion and Opposition? Convert "All old men were boys."

8. (*a.*) If O be a premise, what is the position of the middle term?

(*b.*) Given the middle term twice universal, determine the moods and figures.

(*c.*) What mood is common to all the figures?

9. (*a.*) Put the following reasoning into strict syllogistic form:—"If the line A B is equal to the line C D, it follows that a line equal to ten times A B, is equal to ten times C D."

(*b.*) Reduce the following hypothetical argument to *Camestres* and thence to *Celarent*:—"If Tacitus were right the permanent existence of a mixed government would be impossible; but experience disproves this, and has thus convicted the historian of error."

(*c.*) Examine the following argument:—"As no countries but those which are well governed are prosperous, and as Belgium enjoys a high degree of prosperity, we may conclude that the government of the country is good."

10. Construct a syllogism in *Bokardo* and reduce it both *ostensively*, and *ad impossibile*; and prove the conclusiveness of the latter method.

11. Distinguish an analogical argument from a real induction. State in syllogistic form the following analogical argument and the refutation:—"There is the shadow of an analogy which may lead us to suppose that death is the destruction of human creatures—the supposed likeness, which is observed between the decay of vegetables and of living creatures. But the analogy is so far from holding that there appears no ground even for the comparison; because one of the two subjects compared is wholly void of that which is the principal thing in the other, the power of perception and action."

12. The interposition of the Earth between the Sun and the Moon is regarded as the cause of the eclipse of the Moon. According to what method of induction is this reached? Give the canon of the method; and state the reasoning in a syllogism.

13. Distinguish *induction proper* from several processes which are often confounded with it.

Appendix, No. 2.

Sessional Examinations.

14. Define causality, also physical, efficient, and permanent causes. What is meant by composition of causes?

15. Define *explanation*, and state and give examples of the various ways in which a law may be resolved into other laws. Why are the latter laws more general?

16. State and examine Mill's account of the reasoning process, and of the real functions of the syllogism.

17. State generally the nature and aim of Hamilton's syllogistic notation. What number of moods does he admit in each figure? Show by examples that his new classes of propositions do away with the necessity of special rules of the figures.

18. By what distinction of the meanings of the word *impossibility* may the co-existence of impossibility and omnipotence be reconciled?

JUNIOR CLASS.

1. How is logic related to psychology, and to metaphysics?

2. Enumerate and explain the different formulas that have been proposed for the fundamental axiom of syllogism.

3. Are conversion and opposition processes of *inference?* Give every possible converse of "All animals are organised;" "No wrong act is expedient."

4. Assuming in succession the *truth* of A, E, I, and O; draw up a table of the inferences that may be drawn respecting the opposed propositions in each case.

5. "Dum vitant stulti vitia in *contraria* currunt." This line expresses the *practical* form of what logical error?

6. Are there three or four figures? Give reasons. Prove what figure only can give *four* distinct conclusions.

7. Prove that O cannot be a premise in the first or fourth figures, and that it cannot be the major premise in the second figure, nor the minor in the third.

8. Construct a syllogism in darapti, and reduce it; also one in baroko, and reduce it. Point out the conclusiveness of "Reductio ad impossibile."

9. "If Dr. Lardner's calculations had been correct, transatlantic steamers would never pay; but these steamers do pay, therefore his calculations were not correct." Reduce this hypothetical syllogism to *camestres*, and thence to *celarent*.

10. How are the contradictories and converses of conditional and disjunctive propositions formed?

11. Define dilemma. Put this in the form of a dilemma:—"If this man made such a statement, he must be either a fool or a knave, and so is not to be attended to."

12. Define and exemplify the Sorites, and prove its rules.

13. State accurately the grounds upon which the judgments represented by η and ω are rejected by Thomson.

14. Show by examples that the new classes of propositions introduced by Sir W. Hamilton do away with the necessity of the special rules of the figures.

15. Define chance and probability. How do you compute the force of *combined* probabilities? The chance of its being a fine day to-morrow is two-thirds; of its being wet the following day is one-third: what is the chance of its being fine weather on both days?

10. Define generalization, nominalism, realism; also abstract, concrete, and connotative terms. What sort of existence has an abstract idea?

17. Give Aristotle's definitions of syllogism, enthymeme, induction. What are the different accounts given of the *form* of the inductive syllogism?

18. Give Bacon's criticism of the syllogism.

19. Enumerate and explain Aristotle's categories. What is the logical use of such classifications?

20. What are the analogous fallacies in categorical and hypothetical reasoning? Apply the syllogistic test to the following arguments:—

(*a*) The real friend is not the man who overlooks ones faults: therefore men are better friends to others than to themselves, since they see the faults of others better than their own.

(*b*) Every true patriot is disinterested; few men are disinterested: therefore few men are true patriots.

(*c*) If every objection that could be urged would justify a change of laws, no laws could be maintained; but laws must be maintained: therefore no objection will justify a change of laws.

21. State and solve the fallacy of "Achilles and the Tortoise."

Prize Examination.—June, 1864.

Zoology.—*Examiner, Professor Melville,* M.D.

1. Describe the course of the circulation in fishes.
2. Define the terms—homology, analogy; give examples.
3. Give a tabular view of the classification of the animal kingdom, pointing out the characteristics of the types.
4. State the classification of fishes given in the lectures, and mention the principal characters of the sub-classes.
5. Give a view of the arrangement of the Quadrumana, and mention the distribution of the greater groups.

Botany.

1. Define the terms—Corm, rhizome, tuber.
2. Describe the structure of a dicotyledonous stem, and state the mode in which it grows.
3. Name the inflorescences placed on the table.
4. Give a tabular view of the natural system of plants, according to De Candolle or Endlicher; state also the characteristics of the primary groups.
5. Describe in *technical* terms the plant placed in the table.
6. State the characters of the natural orders:—*Cruciferæ, Legummosæ, Liliaceæ.*

Chemistry.—*Examiner, Professor Rowney,* PH.D.

1. Describe the method of preparing hydrosulphuric acid gas; state its properties, and the uses to which it is applied.
2. What is meant by substitution?
3. Give the process for obtaining caustic potash; mention the impurities generally contained in it.

Appendix, No. 2.

Prize Examination.

4. What is meant by catalysis?

5. What reaction takes place when chlorine gas is passed into a solution of ammonia? give the reaction in symbols.

6. Mention the different sources of heat.

7. Describe the mode of obtaining, and the properties of metallic potassium.

8. Describe Marsh's test for the detection of arsenic.

9. Give the formulæ in symbols of the oxides of iron and chromium.

10. What is meant by rational and empirical formulæ?

11. What compound is produced when carbonic acid is passed through a tube containing red hot charcoal?

12. Give the composition of the principal varieties of sugar.

Sessional Examinations.

Sessional Examinations.

Examiner, Professor Townsend.

SENIOR ENGINEERING CLASS.

1. Give the least breadth of top of ballast, and total breadth of top of embankments both for a single and double line Irish gauge, and enter all the items.

2. The velocity is 40 miles per hour, the radius of the curve 2,640 feet; find cant in inches for the narrow gauge.

3. What are the particular kinds of clay from which fire-bricks are made? give the crushing force of good brick in lbs. per square inch, and describe the four different kinds of bond used in brickwork.

4. Describe the causes which generally promote the decay of timber, and the means adopted for its preservation.

5. Make a hand-drawing of a bridge, with all the necessary sections to carry a public carriage road over a railway, the surface of the ground being 5 feet over formation level, wings to be splayed and figure on the dimensions.

6. A pipe is 4,000 feet long, its diameter is 4 feet, and the head or charge 80 feet; calculate the number of cubic feet of water it will discharge per minute.

7. Describe the different modes of sinking a shaft, the methods of working a tunnel, and show how to calculate when a tunnel and when a cutting should be made.

8. How do you calculate the weight of powder necessary for a small blast? how do you estimate it for a large blast?

9. Describe Fronde's method of easing changes of curvature.

10. A square beam rests on two supports at its ends, and is loaded uniformly with 10 lbs. per lineal foot; show how to find the deflection at the centre.

11. A bank of earth is 6 feet high, 40 feet long, the angle of repose 30°, and its specific gravity 1·5; find the horizontal pressure in tons and the moment round the bottom line to overturn the wall, the upper surface being horizontal.

12. Given the area and ratio of slopes, find the trapezium which gives the maximum discharge.

N.B.—Special credit will be given to the last four questions.

MIDDLE ENGINEERING CLASS.

Sessional Examinations.

1. Describe the method of testing the accuracy of the bubble tube in Gravatt's level, the mode of ascertaining the amount of error, and the way of adjusting it.

2. Write down and prove the expression for the joint correction of curvature and refraction, and state whether it is to be added to, or subtracted from, the reading on the staff.

3. Describe any method with which you are acquainted for measuring the distance to an inaccessible object by means of the chain alone.

4. The sides of a triangle are 2569,4900,5025 links? calculate the acreage.

5. Prove the prismoidal formula, and calculate the number of cubic yards in a cutting, the extreme height being 50 and 45 feet, base 30 feet, length 300 feet, and ratio of slopes $2\frac{1}{2}$ to 1.

6. Convert 57 acres, 3 roods, 36 perches British statute measure into Irish measure.

7. Given the extreme tangents and starting points, describe the method of laying out a railway curve by means of the chain alone.

8. Describe any method with which you are familiar for finding the latitude of a place.

9. A line is drawn from the vertex of a well-conditioned triangle to meet the base produced, determine its length in terms of $a\ b\ c$, x and x^1, $a\ b\ c$ being the sides of the triangle, and x and x^1 the segments of the base.

10. Given α and β Bidder's tabular numbers corresponding to any two given heights, determine Sir John Macneill's tabular number for the same heights in terms of $\alpha\ \beta$, B and N, B being the base and N ratio of slopes.

11. The radius of a railway curve is 1,749 feet, and the angle between the extreme tangents 144° 26′, required the tangent, secant, tangential angle in minutes and degrees, and length of the curve. N.B.—The tangential angle corresponds to a distance or arc of 100 feet.

12. Given the latitude of the place, show how to find the meridian by means of one greatest elongation of a circumpolar star, the polar distance of the star being given.

N.B.—Double credit will be given to the last four questions.

JUNIOR ENGINEERING CLASS.

1. Given a natural scale, show how to construct an isometric scale, and also how to put a circle in isometric projection.

2. (α) Two planes cut the ground line at same point, construct the projections of their line of intersection.

(β) Construct the traces of a plane passing through a given point and a given line.

3. Given the projections of two lines, construct the angle between them.

4. (α) Given the axes of an ellipse, find the foci and describe the curve.

(β) Show how to divide a given line into any number of equal parts, without the aid of a parallel ruler.

5. A right circular cylinder stands on the horizontal plane, determine its shadow—1st, when it falls altogether on the horizontal plane; 2nd, when it falls partly on the vertical plane.

Appendix, No. 2.

Sessional Examinations.

6. Describe the leading feature of the Doric order, and describe a Roman Scotia.

7. (α) The distance between two points is 13·125 inches, the representative fraction is $\frac{1}{11\frac{1}{51}}$; required the distance between the actual points in yards.

(β) The representative fraction is $\frac{1}{12\frac{1}{10}}$; find the number of inches to the mile.

8. Make a perspective drawing of a rectangular box standing on the horizontal plane.

9. Given the projections of the extremities of a line, show how to find its vanishing point, and also how to put it in perspective.

10. Draw a tangent plane to a sphere at a given point of the surface.

11. Show how to convert a square into an octagon by lines parallel to the diagonals, and give the value of the side of the octagon in terms of the side of the square.

12. A right circular cone stands on the horizontal plane, a tangent is drawn to its base and a plane is drawn through it, making an angle α with the horizontal plane; find the values of the axes of the ellipse in which it cuts the cone, H being the height of the cone and θ its semi-angle.

N.B.—Double credit will be given to the last four questions.

DUBLIN: Printed by ALEXANDER THOM, 87 & 88, Abbey-street,
For Her Majesty's Stationery Office.

THE REPORT

OF THE

PRESIDENT

OF

QUEEN'S COLLEGE, GALWAY,

FOR

THE YEARS ENDING 31ST MARCH, 1869 & 1870.

Presented to both Houses of Parliament by Command of Her Majesty.

DUBLIN:
PRINTED BY ALEXANDER THOM, 87 & 88, ABBEY-STREET,
FOR HER MAJESTY'S STATIONERY OFFICE.

1871.

[C.—323.] *Price 6d.*

CONTENTS.

	Page
REPORT,	3
TABLE I.—Numbers and Religious Persuasions of Students who have entered the Queen's College, Galway, in each year from its opening,	3
TABLE II.—Numbers and Religious Persuasions of Students attending Lectures in the College, in each Session from its opening,	4
TABLE III.—Number of Students attending the Lectures of each Professor, in each year since the opening of the College,	5
TABLE IV.—Number of Lectures delivered by each Professor in each Session since the opening of the College,	6
TABLE V.—General Summary of Statistical Returns,	7
TABLE VI.—General Summary of Statistical Returns,	7

APPENDIX:

APPENDIX 1:

Days and Hours of Matriculation and Scholarship Examinations, to be held in October, 1871,	9
General Regulations of the College; Lists of Officers; Courses for Matriculation and Scholarship; Exhibitions, &c.,	10

APPENDIX 2:

Scholarship Examinations, 1870,	43
Sessional Examinations, 1870,	70

THE REPORT

OF THE

PRESIDENT OF QUEEN'S COLLEGE, GALWAY,

FOR

THE YEARS ENDING 31ST MARCH, 1869 AND 1870.

TO THE QUEEN'S MOST EXCELLENT MAJESTY.

MAY IT PLEASE YOUR MAJESTY,

IN the following tables (Nos. I. and II.) will be found a statement of the numbers and religious persuasions of the Students who have entered this College and attended the Lectures therein during every Session since its opening.

I.—NUMBERS and RELIGIOUS PERSUASIONS of STUDENTS who have entered the Queen's College, Galway, in each year from its opening.

Session.	Matriculated Students.	Non-Matriculated Students	Total.	Members of Established Church.	Roman Catholics.	Presbyterians.	Wesleyan Methodists.	Independents.	Various.	Total.
1849–50, . .	64	4	68	24	38	6	–	–	–	68
1850–51, . .	23	3	26	10	9	7	–	–	–	26
1851–52, . .	31	5	36	13	21	2	–	–	–	36
1852–53, . .	21	2	23	8	12	3	–	–	–	23
1853–54, . .	25	5	30	12	15	3	–	–	–	40
1854–55, . .	26	15	41	18	18	3	2	–	–	31
1855–56, . .	32	7	39	14	15	8	1	1	–	49
1856–57, . .	35	8	43	15	22	3	1	1	1	43
1857–58, . .	36	7	43	16	17	9	–	1	–	43
1858–59, . .	44	4	48	20	19	7	2	–	–	48
1859–60, . .	35	5	40	12	25	1	–	1	1	60
1860–61, . .	*59	1	60	13	33	12	2	–	–	60
1861–62, . .	†59	3	62	21	35	6	–	–	–	62
1862–63, . .	60	4	64	18	27	16	1	–	2	54
1863–64, . .	54	5	59	20	21	11	2	4	1	70
1864–65, . .	58	12	70	26	28	13	–	2	1	39
1865–66, . .	46	3	49	16	19	10	3	–	1	49
1866–67, . .	42	2	44	14	18	7	3	2	–	44
1867–68, . .	†44	3	47	14	20	11	2	–	–	47
1868–69, . .	‡56	4	60	20	24	15	1	–	–	60
1869–70, . .	49	5	54	20	25	6	2	–	1	54
Total, . .	899	107	1,006	344	461	159	22	12	8	1,006

* Including three who had previously been in attendance as non-matriculated students.
† Including one who had previously been in attendance as a non-matriculated student.
‡ Including two who had previously been in attendance as non-matriculated students.

II.—Numbers and Religious Persuasions of Students attending Lectures in the Queen's College, Galway, in each Session from its opening.

Session.	Matriculated Students.	Non-Matriculated Students.	Total.	Members of Established Church.	Roman Catholics.	Presbyterians.	Wesleyan Methodists.	Independents.	Various.	Total.
1849-50, . .	64	4	68	24	38	6	–	–	–	68
1850-51, . .	60	3	63	22	28	13	–	–	–	63
1851-52, .	68	5	73	25	41	7	–	–	–	73
1852-53, . .	73	2	75	26	40	9	–	–	–	75
1853-54, . .	76	5	81	30	42	9	–	–	–	81
1854-55, . .	69	16	85	32	46	5	2	–	–	85
1855-56, .	78	9	87	26	42	14	3	2	–	87
1856-57, . .	88	8	96	30	49	10	3	3	1	96
1857-58, . .	92	8	100	31	47	16	3	2	1	100
1858-59, . .	113	9	122	37	64	15	4	1	1	122
1859-60, . .	111	7	118	31	69	11	2	2	3	118
1860-61, . .	141	3	144	33	85	19	3	2	2	144
1861-62, . .	148	5	153	39	91	19	3	1	–	153
1862-63, . .	161	4	165	33	95	32	2	–	3	165
1863-64, . .	160	5	165	41	91	25	3	4	1	165
1864-65, . .	157	12	169	50	78	31	2	6	2	169
1865-66, . .	139	5	144	33	71	29	4	4	3	144
1866-67, . .	133	2	135	36	62	27	4	5	1	135
1867-68, . .	124	3	127	34	54	32	3	4	–	127
1868-69, . .	146	4	150	47	63	34	2	4	–	150
1869-70, . .	130	8	138	42	66	24	2	3	1	138
Total, . .	2,331	127	2,458	702	1,262	387	45	43	19	2,458

In Tables III. and IV. the numbers of Students attending the several Classes, and the numbers of Lectures delivered by each Professor are enumerated.

III.—Return showing the Number of Students attending the Lectures of each Professor, in each year since the opening of the College.

	1849-50.	1850-51.	1851-52.	1852-53.	1853-54.	1854-55.	1855-56.	1856-57.	1857-58.	1858-59.	1859-60.	1860-61.	1861-62.	1862-63.	1863-64.	1864-65.	1865-66.	1866-67.	1867-68.	1868-69.	1869-70.
Greek,	50	31	24	19	24	21	21	23	21	23	24	24	36	36	35	30	34	24	25	28	23
Latin,	50	27	24	22	21	19	20	23	21	22	23	24	29	35	36	32	33	29	23	27	27
Mathematics,	54	38	28	28	27	28	25	34	34	42	35	42	48	52	41	43	40	37	27	39	30
English, &c.,	47	43	28	23	23	22	22	27	20	31	22	29	24	38	39	30	22	23	22	24	23
Modern Languages,	54	23	23	19	25	37	29	34	30	38	52	70	77	76	71	78	72	65	60	65	64
Celtic Languages,	–	3	2	2	–	–	–	–	3	–	3	6	–	–	–	–	–	–	–	–	–
Natural Philosophy,	8	11	23	19	27	23	21	27	29	38	33	70	57	67	62	68	54	49	50	58	54
Natural History,	3	26	25	21	32	25	30	30	32	37	37	39	32	33	29	38	32	27	34	27	28
Logic and Metaphysics,	–	20	17	14	14	14	13	14	15	16	17	19	21	23	25	30	20	16	23	17	21
Chemistry,	13	25	36	29	27	23	29	40	40	49	53	60	57	46	52	52	44	48	46	51	50
Mineralogy and Geology,	–	4	14	15	10	14	10	8	15	16	17	–	6	10	5	6	6	7	4	5	6
Engineering,	2	10	11	13	10	11	9	10	15	18	12	21	18	21	17	16	17	17	13	15	15
Agriculture,	4	5	5	5	6	6	7	11	14	7	7	5	3	5	2	–	–	–	–	–	–
Anatomy and Physiology,	10	9	8	15	18	13	22	35	39	47	52	71	68	65	56	54	53	53	54	65	59
Materia Medica & Medical Jurisprudence,	–	5	9	11	10	7	8	17	13	24	20	26	34	28	32	23	18	30	20	32	28
Surgery,	–	–	6	12	7	7	6	13	13	18	20	19	33	27	26	26	24	12	19	21	18
Midwifery,	–	–	4	7	4	–	4	3	11	5	11	12	14	17	12	14	14	9	8	9	8
Medicine,	–	–	–	4	4	2	6	6	7	7	6	8	16	21	26	19	15	10	15	14	14
English Law,	4	4	5	6	6	7	5	4	3	7	7	4	7	7	7	8	6	7	8	12	12
Jurisprudence and Political Economy,	4	4	12	13	16	10	9	9	7	17	13	19	5	9	8	8	10	12	14	15	11

IV.—Return of the Number of Lectures delivered by each Professor in each Session since the opening of the College.

	1849-50.	1850-51.	1851-52.	1852 53.	1853-54.	1854-55.	1855-56.	1856-57.	1857-58.	1858-59.	1859-60.	1860-61.	1861-62.	1862-63.	1863-64.	1864-65.	1865-66.	1866-67.	1867-68.	1868-69.	1869-70.
Greek,	265	254	216	224	248	249	217	262	223	246	210	229	*315	290	255	255	247	274	240	249	257
Latin,	270	252	212	236	233	190	217	244	195	189	189	196	181	263	228	237	236	248	224	209	267
Mathematics,	221	255	230	167	164	211	181	†186	†234	†233	†209	210	†213	†199	†199	†213	†198	212	177	206	209
English, &c.,	37	23	77	97	126	128	127	107	100	92	97	76	16	160	147	145	136	155	156	132	120
Modern Languages,	212	249	207	175	155	160	155	†162	†154	†151	†169	†246	†244	†229	†234	256	†269	†163	†272	†252	†237
Celtic Languages,	–	90	65	30	–	–	–	‡3	48	–	30	24	–	–	–	–	–	–	–	–	–
Natural Philosophy,	63	154	120	207	139	175	225	174	173	192	172	213	196	211	203	229	255	293	257	258	285
Natural History,	–	120	85	92	85	76	68	68	87	77	76	56	57	62	70	82	77	70	60	80	104
Logic and Metaphysics,	–	40	114	159	123	141	138	162	106	109	170	165	132	182	146	157	139	172	171	141	121
Chemistry,	32	111	128	140	113	123	97	101	107	98	100	95	91	95	89	87	102	94	97	91	103
Mineralogy and Geology,	–	51	45	57	51	50	45	49	60	64	64	§–	61	49	66	56	58	63	60	51	61
Engineering,	9	118	105	97	80	76	112	111	122	126	81	162	183	241	211	249	226	237	258	226	252
Agriculture,	–	106	112	160	144	160	192	174	123	154	102	83	65	54	28	–	–	–	–	–	–
Anatomy and Physiology,	111	112	111	108	100	115	104	103	102	104	‖116	‖96	‖90	‖84	‖105	‖118	‖86	‖137	‖116	‖117	‖121
Materia Medica & Medical Jurisprudence,	–	51	60	90	95	93	95	96	90	90	77	85	78	86	88	84	84	81	79	77	76
Surgery,	–	–	61	62	62	61	62	60	53	59	60	55	60	60	50	49	58	61	54	60	58
Midwifery,	–	–	59	70	62	–	62	61	60	59	54	51	60	51	54	51	51	55	53	57	55
Medicine,	–	–	–	64	62	61	62	60	60	58	62	55	49	50	50	49	51	54	55	50	45
English Law,	18	45	55	97	71	72	72	40	35	43	49	72	68	64	68	60	36	61	77	75	80
Jurisprudence and Political Economy,	20	48	60	96	106	95	60	52	51	97	49	61	60	67	83	70	53	73	85	78	88

* Exclusive of 72 lectures to extra classes.
† Exclusive of a Course of Lectures given by the Senior Scholar.
‡ These Lectures were open to the Public.
§ Owing to an alteration in the Ordinances of the University, no Lectures on Mineralogy and Geology were delivered this Session.
‖ Exclusive of Anatomical Demonstrations.

At the close of the last Session of Parliament certain statistical returns relating to the Queen's Colleges in the year 1868–9 were prepared by order of the House of Commons. The general summary of these returns, so far as they relate to this college, will be found in Table V. I also append in Table VI. a similar summary for the Session 1869–70.

V.—General Summary of Statistical Returns, 1868–9.

—	Church of Ireland.	Presbyterians.	Roman Catholics.	Other denominations.	Total.	Students who in 1868–9 or in any previous Session were in Faculty of Arts.	Students who at any time held Scholarships or Exhibitions, whether in		Students who did not hold any Scholarship or Exhibition in 1868–9.	Students who never held any Scholarship or Exhibition.
							1868–9.	Or any previous Session.		
Faculty of Arts, . . .	8	11	16	3	38	38	31	–	7	7
,, Law, . . .	3	2	7	–	12	9	6	2	6	4
,, Medicine, . .	27	13	30	1	71	11	19	9	52	43
Department of Engineering,	4	3	6	1	14	–	8	3	6	3
Occasional Students, . .	3	4	7	1	15	14	6	6	9	3
Non-Matriculated Students,	2	1	1	–	4	2	–	–	4	4
Total, . . .	47	34	67	6	154	74	70	20	84	64
Deduct for Students who attended in two Faculties, &c., ...	–	–	4	–	4	–	–	–	–	–
Total of separate individuals,	47	34	63	6	150	–	–	–	–	–

VI.—1869–70.

—	Church of Ireland.	Presbyterians.	Roman Catholics.	Other denominations.	Total.	Students who in 1869–70 or any previous session were in Faculty of Arts.	Students who at any time held Scholarships or Exhibitions, whether in		Students who did not hold any Scholarship or Exhibition in 1869–70.	Students who never held any Scholarship or Exhibition.
							1869–70.	Or any previous Session.		
Faculty of Arts, . . .	4	12	21	–	37	37	28	3	9	6
,, Law, . . .	2	3	7	–	12	10	10	–	2	2
,, Medicine, . .	25	5	33	2	65	9	17	6	48	42
Department of Engineering,	4	4	5	2	15	3	13	–	2	2
Occasional Students, . .	4	1	1	2	8	8	6	1	2	1
Non-Matriculated Students,	3	1	4	–	8	4	–	–	8	8
Total, . . .	42	26	71	6	145	71	74	10	71	61
Deduct for Students who attended in two Faculties, &c., ...	–	2	5	–	7	–	–	–	–	–
Total of separate individuals,	42	24	66	6	138	–	–	–	–	–

In the Appendix will be found detailed information as to the courses of instruction pursued in the College, and selections from the Questions set to Candidates at the Scholarship and other Examinations.

The Library, Museums, and other departments of the College have been maintained in a state of the highest efficiency.

I am enabled to speak in terms of the greatest satisfaction of the manner in which their important duties have been discharged by the several Professors of the College. In justification of this statement I can point with pleasure to the marked success of our Students at the University and other public examinations.

The conduct of the Students has been generally unexceptionable.

I regret to add that, in consequence of his continued ill-health, the College has been deprived of the services of one of its ablest Professors—Mr. J. E. Cairnes. I cannot conclude this report without bearing testimony to the zeal and the eminent ability manifested by him during his connexion with the College.

EDWARD BERWICK,

President.

QUEEN'S COLLEGE, GALWAY,

8th February, 1871.

APPENDIX.

APPENDIX, No. 1.

QUEEN'S COLLEGE, GALWAY, 1871-72.

DAYS AND HOURS OF MATRICULATION AND SCHOLARSHIP EXAMINATIONS, OCTOBER, 1871.

DAYS.	HOURS.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.
Tuesday, 17th Oct.	9—5		Supplementary Examinations.	Supplementary Examinations.
Wednesday, 18th Oct.	9—5		Supplementary Examinations.	Supplementary Examinations.
Thursday, 19th Oct.	9-12		Lit. Schol.—Latin. Med. } Schol.—Chem. Engin. }	
	2—5		Lit. Schol.—Greek. Med. } Schol.—Chem. Engin. }	
Friday, 20th Oct.	9-12	Matriculation.	Lit. Schol.—English. Eng. Schol.—Geom. Draw., &c.	
	2—5	Matriculation.	Lit. Schol.—English. Eng. Schol.—Geom. Draw., &c.	
Saturday, 1st Oct.	9-12		Lit. Schol.—Latin. Med. Schol.—Nat. Hist.	
	2—5		Lit. Schol.—Greek. Med. Schol.—Nat. Hist.	
Monday, 23rd Oct.	9-1	Lit. } Schol.—English. Med. } Lic. in Arts Ex.	Med. } Schol.—Mod. Lang. Lit. }	Engin. Schol.—Engin.
	2—5	Lit. } Schol.—Greek. Med. }		Engin. Schol.—Engin.
Tuesday, 24th Oct.	9-12	Lit. } Schol.—Latin. Med. }		Engin. Schol.—Min. & Geol.
	2—5	Lit. } Schol.—Greek. Med. }		
Wednesday, 25th Oct.	9-12	Lit. } Schol.—Latin. Med. }	Med. Schol.—Nat. Phil.	Engin. Schol.—Nat. Phil.
	2—5	Science } Schol.—Math. Med. } Engin. } Lic. in Arts Ex.	Science } Schol.—Math. Engin. }	Engin. Schol.—Nat. Phil.
Thursday, 26th Oct.	9-12	Science } Schol.—Math. Med. } Engin. }	Science } Schol.—Math. Engin. } Med. Schol.—Anat.	Engin. Schol.—Math.
	2—5		Med. Schol.—Anat.	Engin. Schol.—Math.

The Examination for the Third and Fourth Year Scholarships in MEDICINE will commence on Thursday, the 26th October.

Arrangements will be made for holding the Examinations for Law Scholarships early in December.

Appendix, No. 1.

QUEEN'S COLLEGE, GALWAY.—Founded December 30, 1845.

This College is a Corporation, founded by Letters Patent under the Great Seal of Ireland, under the name and style of the "President and Professors of Queen's College, Galway."

The general government and administration of the College under the Statutes, and in cases not provided for by the Statutes, is vested in a Council consisting of the President, and six Professors elected by the Corporate Body.

Visitors.

His Grace the Lord Primate.
The Most Honorable the Marquess of Kildare.
The Right Honorable the Chief Secretary for Ireland.
The Right Honorable Sir Maziere Brady, Bart.
The Right Reverend the Lord Bishop of Tuam.
The Most Reverend Archbishop M'Hale.
The Moderator of the General Assembly.
The President of the College of Physicians.
The President of the Royal College of Surgeons.

President.

Edward Berwick, B.A.

Council.—1870-71.

The President.
George J. Allman, LL.D.
Arthur H. Curtis, LL.D.
Thomas W. Moffett, LL.D.
James V. Browne, M.D.
John Cleland, M.D.
Edward Townsend, M.A.

Professors.

Greek,	D'Arcy W. Thompson, M.A.
Latin,	Thomas Maguire, LL.D.
Mathematics,	George Johnston Allman, LL.D.
Natural Philosophy,	Arthur H. Curtis, LL.D.
History, English Literature, and Mental Science,	Thomas W. Moffett, LL.D.
Chemistry,	Thomas H. Rowney, PH.D.
Natural History,	Alexander G. Melville, M.D. Edin., M.R.C.S. Eng.
Mineralogy and Geology,	Wm. King, D. Sc.
Modern Languages,	Charles Geisler, PH.D.
Jurisprud. and Polit. Econ.	William Lupton, M.A.
English Law,	William B. Campion, Q.C.
Anatomy and Physiology,	John Cleland, M.D.
Practice of Medicine,	Nicholas Colahan, M.D., F.R.S., Edin.
Practice of Surgery,	James V. Browne, M.D., L.R.C.S.I.
Materia Medica,	Simon M'Coy, F.R.C.S.I.
Midwifery,	Richard Doherty, M.D., Hon. V.P., Obstet Soc. Dub.
Medical Jurisprudence,	
Civil Engineering,	Edward Townsend, M.A.

Office-Bearers.

Thomas W. Moffett, LL.D.,	Registrar.
George J. Allman, LL.D.,	Bursar.
John H. Richardson, B.A.,	Librarian.

Deans of Residence.

Church of Ireland, ... Rev. James O'Sullivan, M.A
General Assembly of the Presbyterian Church in Ireland, Rev. William Adair.
Wesleyan Methodist Church, ... Rev. Mortlock Long.

The College Session.

The College Session is divided into three Terms.

The First Term of the Session 1870–71 commences on Tuesday, October 18, and ends on December 23, 1870.

The Second Term commences on January 6, and ends on Saturday, April 1, 1871.

The Third Term commences on April 17, and ends on Saturday, June 10, 1871.

The First Term of the Session 1871–72 commences on Tuesday, October 17, and ends on December 23, 1871.

Students.

Students are either Matriculated or Non-Matriculated.

Matriculated Students are required to pass an entrance or Matriculation Examination, and to pursue fixed courses of study.

Non-Matriculated are permitted to attend the Lectures of any of the Professors, without being required to pass the Matriculation or any other Examination.*

Matriculation.

Candidates for Degrees or Diplomas in the Queen's University, or for Scholarships, Exhibitions, or Prizes, in Queen's College, Galway, are required to pass a Matriculation Examination.

Students are admitted by examination to Matriculation in the Faculties of Arts, Law, and Medicine, and in the School of Engineering. In each Faculty and School special courses are prescribed for examination.†

The Matriculation Examination is held at the commencement of the first Term of each Session; but additional Matriculation Examinations are held before the close of the Term.

The last Matriculation Examination for Students in the Faculty of Medicine is held on the 16th of November.

Candidates for Matriculation are required to appear in the Registrar's office before the Matriculation Examination, for the purpose of entering their names on the College books.

Each candidate, before being admitted to the Matriculation Examination, is required to pay to the Bursar the Matriculation and College fee of ten shillings. This fee will be returned to such students as may fail to pass the Examination.

Attendance on Lectures.

Attendance upon Lectures is strictly prescribed to all Matriculated Students.

All Students shall pay the College Fee, and a moiety of their Class Fees, to the Bursar, and enter their names with the Registrar, before they are admitted to the classes of the several Professors.

The Registrar shall furnish to the Professors, before the commencement

* For further particulars of the status and privileges of Non-Matriculated Students, *vide* p. 13.

† *Vide* pp. 16, 23, 28, 33.

Appendix, No. 1.

of Lectures in each Term, the rolls of their several classes, and from time to time such names as shall be afterwards entered with him.

No Student shall have his name replaced on the rolls of the Professors at the commencement of the second Term who has not paid the second moiety of his Class Fees.

Attendance on Lectures includes preparation for Lectures; and it is competent for a Professor who, on any occasion, is not satisfied with the preparation of a Student, to refuse him credit for attendance.

Attendance upon Courses of Lectures in the Faculty of Arts is recognised in cases where Students pass to a different Faculty or School.

In case of absence arising from illness or other unavoidable cause, the Student is required to lodge with the Registrar, immediately on recommencing his attendance, a letter or certificate explaining his absence, to be laid before the Council.

Examinations.

A General Sessional Examination is held at the close of each Session in the subjects upon which Lectures have been delivered during the Session. There is also a Supplementary Examination on the same subjects at the commencement of the following Session.

Every Matriculated Student in the Faculties of Arts and Law, and in the School of Engineering, must pass either the General Examination or the Supplementary Examination before his name can be entered on the College Register as having completed the Session; and no Student in these Faculties and Schools can be permitted to enter upon the Course of the succeeding year until he has so completed the previous Session.

No Student is admitted to the Sessional or the Supplementary Examination who has not kept the Courses of Lectures prescribed to Students of this class and standing.*

Scholarships.

Forty-six Junior and eight Senior Scholarships have been founded in the College.

Of the Junior Scholarships†—

Thirty, of the value of £24 each, are appropriated to Students pursuing the Course prescribed for the Degree of B.A.

Three, of the value of £20 each, to Students pursuing the Course for the Diploma of Elementary Law and the Degree of LL.B.

Eight, of the value of £25 each, to Students pursuing the Course for the Degree of M.D.

Five, of the value of £20 each, to Students pursuing the Course for the Diploma of Civil Engineering.

The Examinations for Junior Scholarships are held at the commencement of the First Term of the Session.

No Student is allowed to become a Candidate for a Junior Scholarship until he has paid the College Fee and one-half of the Class Fees for the current Session.

No Student is permitted to present himself as a Candidate for a Senior Scholarship who has not entered his name with the Registrar, and paid the College Fee to the Bursar.

All Senior Scholars in Arts are required to be in attendance in the College during their period of office.

* For University Examinations, see the "University Regulations."

† For the distribution of these Scholarships, the subjects of Examination, and the conditions upon which they are held, *vide* pp. 18-22, 24, 25, 30-32, 35, 36.

Junior Scholars are exempted from the payment of one moiety of the Class Fees for the courses prescribed to Students of their faculty and standing. *Appendix No. 1.*

No Student can hold the same Scholarship a second time.

No Scholarship will in any case be awarded, unless the Candidates are, in the opinion of the Examiners, sufficiently qualified in the prescribed courses.

Exhibitions.

The College is empowered to award Exhibitions, varying in value from £10 to £20, at the same Examinations as the Scholarships, and to be held upon the same terms.

Exhibitioners are required to pay the whole amount of the Class Fees for the Session.

No Student is allowed to compete for a Junior Scholarship or Exhibition in any course substantially the same as that in which he has already held a Scholarship or Exhibition.

All Junior Scholars and Exhibitioners are required to attend lectures, and pass the Sessional Examinations during their year of office.

Prizes.

The College is empowered to award Prizes, by examination, at the close of the Session, to the most distinguished answerers in the several courses of study pursued during the Session.

Two prizes for English prose composition, and two prizes for Geometry,* have been founded in the College, to be awarded annually at entrance:—first prize for English prose composition, £3 worth of books; second do., £2 worth of books: first prize for Geometry, £3 worth of books; second do., £2 worth of books.

All Candidates for Scholarships, Exhibitions, or Prizes, must have passed the Matriculation Examination in the Faculty or School to which the Scholarships, Exhibitions, or Prizes are attached.

Non-Matriculated Students.

Non-Matriculated Students are those who are permitted to attend the Lectures of any of the Professors without being required to pass the Matriculation or any other examination. They are required to pay to the Bursar the regulated Fees for the Classes proposed to be attended, and to sign an engagement to observe order and discipline in the College. They are not entitled to compete for Scholarships or other Collegiate distinctions.

During the term of their attendance on College Lectures they are admitted to read in the Library; and, on payment of a deposit of £1, are permitted to take out two volumes on loan, under the same regulations as Matriculated Students.

Every Non-Matriculated Student must pay to the Bursar one-half of his Class Fees before his name can be entered on the rolls of the several Classes, and the remainder at the commencement of the second Term.

* Candidates are recommended to read M'Dowell's Exercises on Euclid and in Modern Geometry (Cambridge: Deighton, Bell, and Co., 1863), from beginning to page 150.

Appendix, No. 1.

STUDENTS OF OTHER UNIVERSITIES.

Any Student who shall have pursued part of his Collegiate Studies in any one of the Queen's Colleges, or in any University capable of granting Degrees in the several Faculties of Arts, Law, and Medicine, and any Legal or Medical Student who shall have pursued part of his Legal or Medical Studies under teachers recognised by the Senate of the Queen's University, on passing such Examinations, and fulfilling such other conditions as the Council shall prescribe, may take corresponding rank in this College; and also may compete for Scholarships or other Prizes of the corresponding year, provided he shall not hold at the same time a Scholarship or other office of emolument in any other University, College, or Medical School.

FEES.

The College Fees payable by Matriculated Students are 10*s.* at the commencement of the first year, and 5*s.* at the commencement of each subsequent year.

The Fees payable by Students, whether Matriculated or Non-Matriculated, to the several Professors for attendance on the several Pass Courses of Lectures or instruction, are £1 for each Course extending over one Term only, and £2 for each Course extending over more than one Term of a Session, when attended for the first time, and £1 for each re-attendance on the same.

This rule applies in all cases except the following:—

The Fee payable for the Course of Anatomy and Physiology is £3, when attended for the first time, and £2 for every subsequent attendance; and the Fee payable for Practical Anatomy or Practical Chemistry is £3 for each attendance.

The Fees payable for attendance upon Honor Courses of Lectures and upon Courses of Special Instruction not prescribed as a qualification for a Degree or other University distinction, are £2 for each Course, whether attended for the first time or re-attended.

This rule does not apply to special instruction in Practical Chemistry and in Operative Surgery. In the former case, the Fee is regulated by the time spent in the laboratory, at the rate of £1 a month. The Fee for Operative Surgery is £3.

Matriculated Students who attend voluntary Courses are, so far as these Courses are concerned, regarded as Non-Matriculated.

TABLE showing in each case the *minimum* amount of Fees payable by Students to the College and for attendance on the several prescribed Courses of Lectures and Instruction.

	First Session.	Second Session.	Third Session.
	£ s. d.	£ s. d.	£ s. d.
For the Degree of B.A.,	9 10 0	7 5 0	8 5 0
If a Scholar,	5 0 0	3 15 0	4 5 0
For the Degree of M.D.,	—	—	—
If a Scholar,*	—	—	—
For the Diploma of Elementary Law,	4 10 0	4 5 0	2 5 0
If a Scholar in Law,	2 10 0	2 5 0	1 5 0
For the Degrees of LL.B. and LL.D.	13 10 0	11 5 0	10 5 0
If a Scholar in Arts,	9 0 0	7 15 0	6 5 0
If a Scholar in Law,	11 10 0	9 5 0	5 5 0
For the Diploma of Civil Engineering,	10 10 0	12 5 0	6 5 0
If a Scholar,	5 10 0	6 5 0	3 5 0

* The Fees for the Degree of M.D. vary according to the course of study pursued.

In all cases the Fees are payable in two instalments. The first instalment includes the College Fee—which is 10*s.* for the first year, and 5*s.* for every subsequent year—and a moiety of the Class Fees payable to the several Professors whose lectures are prescribed in the curriculum. This first instalment is payable at the commencement of the First Term in which the Student enters. The second instalment—consisting of the remaining moiety of the Class Fees—is payable at the commencement of the Second Term. Scholars are exempted from the payment of this latter moiety.

Residences.

It is provided by the Statutes that every Matriculated Student under the age of twenty-one years shall reside, during the College Terms, with his parent or guardian, or with some relation or friend to whose care he shall have been committed by his parent or guardian, or in a Boarding-house, licensed by the President of the College, and arranged for the reception of Students, where he shall be placed under the moral care and spiritual charge of the Dean of Residences of his creed.

Discipline.

All Matriculated Students are required to wear a cap and gown.

A penalty of sixpence shall be imposed on any Student who shall appear within the quadrangle without his cap and gown.

The Porter at the lodge is instructed to report to the Bursar the name of any Matriculated Student who shall appear within the quadrangle without his cap and gown, and also to intimate to the Student at the time that he will be reported.

Any Student so reported shall pay the fine to the Bursar within one week, without receiving further notice, and the fine shall be doubled every week that the fine remains unpaid.

A Professor may inflict a fine not exceeding 2*s.* 6*d.* on any Student for any breach of discipline in his class which he does not consider of sufficient importance to bring under the notice of the Council.

Members of the Library Committee may inflict a fine not exceeding 2*s.* 6*d.* on any Student, for any breach of discipline in the Library, which they do not consider of sufficient importance to bring under the notice of the Council.

Library Regulations.

The Library is open from the commencement of the Session to the 1st of March, between the hours of 10 A.M. and 4 P.M., and from the 1st of March to the 1st of July, between the hours of 10 A.M. and 5 P.M., except (1) on College holidays; (2) for a period of five days in the Christmas and Easter recesses respectively.

The Library is closed during the month of July, except for one hour each week, when the Librarian attends to issue books. From the 1st of August to the commencement of the College Session the Library is open between the hours of 11 A.M. and 3 P.M.

No Student is admitted to the Library without subscribing the following declaration:—

We the undersigned do hereby promise to the President and Council of the Queen's College, Galway, that we will not mark, turn down the leaves of, or write on paper placed upon, or in any way whatsoever soil, deface, injure, or remove, without permission, any book or document in the Library of said College. We also promise that we will not injure the Library furniture; that we will faithfully observe all the rules made for the regulation of the Library, and that we will acquaint the College Authorities with any serious instance of violation of the above rules which may come under our notice.

Appendix. No. 1.

No Student can borrow books from the Library until he has deposited the sum of £1 with the Bursar.

No Student can have more than two volumes on loan from the Library at the same time.

No Student can retain a volume borrowed from the Library more than one week; but the borrower, on returning the book, may renew the loan, if the book has not been in the meantime applied for.

Any Student, on receiving at any time a notice from the Librarian, must return, within twenty-four hours, the books belonging to the Library in his possession.

Any person losing or injuring a book belonging to the Library must replace it by another copy of the same edition and of equal value, or pay such a sum of money as will enable the College to replace it.

FACULTY OF ARTS.

The Degrees of B.A. and M.A.

1.—*The Degree of Bachelor in Arts.*

Candidates for the Degree of B.A. in the Queen's University, must on entering Queen's College, Galway, pass the following Matriculation Examination.

MATHEMATICS.

Arithmetic—Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—Including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

THE GREEK LANGUAGE.

Either of the following authors which the Candidate may select:—
Homer—Iliad, Books I. and II.
Xenophon—Anabasis, Books I. and II.

THE LATIN LANGUAGE.

Any one of the following authors which the Candidate may select:—
Virgil—Æneid, Books I.-V.
Horace—Odes, Book I.; Satires, Book I.
Sallust—Conspiracy of Catiline, and Jugurthine War.
Cæsar—Gallic War, Books V., VI.
Re-translation from English into Latin of portions of Cæsar.

HISTORY AND THE ENGLISH LANGUAGE.

History, Grecian and Roman, Outlines of.
Geography, Ancient and Modern, Outlines of.*
Grammar, English Grammar, and Composition.

Students are admitted to the University Examination for this Degree who, after having passed the Matriculation Examination, have attended the College Lectures for at least two full terms in each Session, have passed the prescribed College Examinations, and are recommended for promotion to the Degree by the President of the College.

* Rev. T. K. Arnold's Handbooks are recommended.

The Session extends from the third Tuesday in October to the second Saturday in the following June, with short recesses at Christmas and Easter. Each Session consists of three Terms. *Appendix, No. 1.*

The studies for the Degree of Bachelor in Arts extend over three Sessions, and comprise attendance on the following Curriculum :—

FIRST SESSION.

English (One Term).
Greek.
Latin.
A Modern Continental Language.
Mathematics.

SECOND SESSION.

Logic (One Term).
Natural Philosophy.

Along with any two of the following :—

Greek (Second Course).
Latin (Second Course).
A Modern Continental Language (Second Course).
Mathematics (Second Course).

THIRD SESSION.

English Language and Literature.
Metaphysics, or History, or Political Economy (Two Terms).
Chemistry.
Zoology, or Botany.

Attendance on these Courses includes passing such Examinations as may be appointed by the College Council, and the catechetical parts of the Courses of Lectures.

In each College there is a General Examination in the subjects upon which lectures have been delivered during the Session. There is also a Supplementary Examination in the same subjects, at the commencement of the following Session. All Students must pass either the General Examination or the Supplementary Examination, before they proceed with the course of the succeeding year.

Candidates for the Degree of Bachelor in Arts must reside at their respective Colleges during at least the first two Terms of each Session, but may be exempted from residence during the third Term by a special grace of the College Council.

Third year's Students may substitute attendance on one or on two Courses of Honor Lectures, for attendance upon a like number of the Courses above set down for study in the Third Session.

Candidates for the Degree of Bachelor in Arts are required to pass two University Examinations—the Previous Examination held simultaneously in each of the Colleges of the University, and the Degree Examination held in the Hall of the University in Dublin.

Students who have completed their second Session must pass the Previous Examination before rising to the third year, unless prevented by illness or other inevitable accident, in which case the Senate may admit them to a Supplementary Examination.

For the regulations as to the First University Examination in Arts, and the Examination for the Degrees of B.A. and M.A., see the "University Regulations."

For the Exhibitions awarded at the First University Examination in Arts, see p. 38.

Appendix, No. 1.

DAYS AND HOURS OF LECTURES.

	Subjects.	Terms.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Year	French,	1, 2, 3,	10	.	10	10	.	.
	German,	1, 2, 3,	.	11	.	.	.	12
	Latin (pass),	1, 2, 3,	12	.	12	.	12	.
	Greek (pass),	1, 2, 3,	.	11	.	12	.	12
	Mathematics (pass),	1, 2, 3,	1	.	1	.	1	.
	English,	2,	11	.	11	.	11	.
	Latin (honor),	1, 2, 3,	.	11	.	11	.	11
	Greek (honor),	1, 2, 3,	12	.	12	.	12	.
	Mathematics (honor),	1, 2, 3,	.	1	.	1	.	.
2nd Year	French,	1, 2, 3,	2	.	2	.	.	.
	German,	1, 2, 3,	.	12	.	12	.	.
	Greek,	1, 2, 3,	.	10	.	11	.	.
	Latin,	1, 2, 3,	11	.	11	.	11	.
	Mathematics (pass),	1, 2, 3,	.	1	.	1	.	.
	Natural Philosophy (pass),	1, 2, 3,	12	.	12	.	.	.
	Logic,	2,	1	.	1	.	1	.
	Mathematics (honor),	1, 2, 3,	12	.	12	.	12	.
	Natural Philosophy (honor),	1, 2, 3,	.	2	.	2	.	.
3rd Year	Zoology or Botany,	1, 2, 3,	.	11	.	11	11	11
	Chemistry,	1, 2, 3,	12	.	12	.	12	12
	English Language and Literature,	1, 2,	3	.	3	.	3	.
	Metaphysics,	1, 2,	.	1	.	1	.	1
	History,	1, 2,	2	.	2	.	2	.

JUNIOR SCHOLARSHIPS IN ARTS.

Of the Thirty Junior Scholarships appropriated to Students in the Faculty of Arts :—

Ten are tenable by Students of the First Year.
Ten „ „ Second Year.
Ten „ „ Third Year.

Of the ten Junior Scholarships in Arts tenable by Students of each year, five are awarded for proficiency in literary studies, and five for proficiency in scientific studies; but it is competent for the Council, in case Scholarships in either department are withheld on the ground of insufficient answering, to assign the unawarded Scholarships to the other department.

The Examination for Junior Scholarships in Arts of the first year takes place immediately after the first Matriculation Examination of the Session, and is open to all Students of the first year, who have passed that Examination, and have paid the regulated fees. Those candidates to whom Scholarships are then awarded hold their Scholarships for one year.

There is a further Examination, at the commencement of the second year, which is open to all Matriculated Students in Arts of that year who have passed the Examination and attended the lectures prescribed to Students of the first year, and who have paid the regulated fees.

Those Candidates to whom Scholarships are awarded at this further Examination, hold their Scholarships for two years, provided (1) they answer sufficiently in two Honor Courses at the Sessional Examination of the second year; (2) they pass the First Examination for the Degree of B.A.

If any Student be placed, at the Examinations for Junior Scholarships in Arts, first on both the lists of candidates, he is entitled to a Scholarship of each division; but in no other case can two Scholarships be held by the same Student.

SCHOLARSHIP EXAMINATIONS.—SESSION 1871-72.

LITERARY SCHOLARSHIPS, FIRST YEAR.

THE GREEK LANGUAGE.

Homer—Iliad, Books VI. and XVIII.
Euripides—Phœnissæ.
Xenophon—The Anabasis, Books VI. and VII.

THE LATIN LANGUAGE.

Virgil—The Æneid, Books I.-VI.
Horace—The Odes, Books I., II.; the Satires; the Epistles.
Cicero—Pro Lege Manilia.
Sallust—Conspiracy of Catiline, and Jugurthine War.
Livy—Books I.-III.

COMPOSITION.

In Greek, Latin, and English Prose.*

HISTORY AND GEOGRAPHY.

Grecian History, to the Death of Alexander.†
Roman History, to the Accession of Augustus.‡
Outlines of Ancient and Modern Geography.§

SCIENCE SCHOLARSHIPS, FIRST YEAR.

MATHEMATICS.

Arithmetic :—

Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.

Algebra :—

Including the Solution of Simple and Quadratic Equations; Arithmetical and Geometrical Progressions; Permutations and Combinations; the Binomial Theorem the nature of Logarithms.

Geometry :—

Euclid, Books I., II., III., IV., and VI., with definitions of Book V.

Plane Trigonometry :—

So far as to include the Solution of Triangles.

The use of Logarithmic and Trigonometrical Tables.

LITERARY SCHOLARSHIPS, SECOND YEAR.

THE GREEK LANGUAGE.

Homer—Iliad, Books XIX.-XXIV.
Demosthenes—Contra Midiam.
Thucydides—Book IV.
Euripides—Orestes.

THE LATIN LANGUAGE.

Cicero—Tusculan Disputations, Book III.
Cicero—Letters to his brother, Quintus, Book I.
Tacitus—Annals, Book VI.
Terence—Phormio.
Horace—Odes, Books I. and II.
Juvenal—Satires III., IV., V., VII., and X.
A piece of unprepared Latin.

THE ENGLISH LANGUAGE.

Macaulay's Essay on Bacon.
Shakespeare—Richard II.
Bain's English Grammar.

* Rev. T. K. Arnold's Introductory Works on Greek and Latin Prose Composition are recommended.
† Dr. William Smith's History of Greece is recommended.
‡ Liddell's Roman History is recommended.
§ Dr. William Smith's Handbook of Ancient Geography is recommended.

Appendix, No. 1.

MODERN LANGUAGES.

French :—

Molière—Misanthrope.
Thierry—L'Histoire de la Conquête de l'Angleterre par les Normands.
Lamartine—L'Histoire des Girondins.
The writers during the reign of Louis XIV.
Composition out of the Materials for French Composition by Gasc.

Or, German :—

Mary Stuart, by Schiller.
Das Buch der Lieder, by Heinrich Heine.
German Literature from the birth of Goethe till his death.
Composition: Translation of Julius Cæsar, by Shakespeare.

HISTORY AND GEOGRAPHY.

As in the First Year.

COMPOSITION.

In Greek, Latin, and English Prose.

Science Scholarships, Second Year.

MATHEMATICS.

The Course appointed for Science Scholarships of the first year.

Algebra :—

Nature and Simple Transformations of Equations; the Solution of Cubic and Biquadratic Equations; Method of Indeterminate Co-efficients.

Geometry :—

Elements of Solid Geometry.

Trigonometry :—

Plane and Spherical.

Analytic Geometry :—

Discussion of the Equations of the Right Line and Circle.

The Professor's Lectures to the Class of the First Year.

Senior Scholarships.

The College is empowered to award Seven Scholarships, of the value of forty pounds each, by examination, to the most distinguished Students who shall have proceeded to the Degree of B.A., for proficiency in special departments of study. Of these Scholarships one is awarded for proficiency in each of the following departments :—

1. The Greek and Latin Languages, and Ancient History.
2. The Modern Languages, and Modern History.
3. Mathematics.
4. Natural Philosophy.
5. Metaphysical and Economic Science.
6. Chemistry.
7. Natural History.

I.—GREEK AND LATIN LANGUAGES, AND ANCIENT HISTORY.

The Greek Language :—

Thucydides—Book III.
Plato—Gorgias.
Demosthenes—De Falsâ Legatione.
Pindar—Nemean Odes.
Aristophanes—The Knights.
Odyssey—Books VI. to XI. inclusive.
Iliad—Books XIX.–XXIV.
Translations from unprepared Greek.

The Latin Language :—

Cicero—De Republicâ and De Legibus.
Virgil—Æneid, VII.–XII.
Plautus—Pseudulus.
Juvenal and Persius.
Ovid—Fasti, IV., V., VI.
Translations from unprepared Latin.
Composition in Greek and Latin Prose.

Ancient History :—

Curtius' History of Greece, translated by Ward.
Mommsen's Roman History, Chapters on Constitution.

II.—MODERN LANGUAGES AND MODERN HISTORY.

The English Language:—

Marsh's Student's Manual of the English Language.
Chaucer—Prologue of the Canterbury Tales.
Shakespeare—Julius Cæsar (Craik's edition).
Byron's Childe Harold, Cantos III. and IV.

The French Language:—

La Bruyère—Les Caractères.
Molière—Le Misanthrope.
Corneille—Le Cid.
Extracts from writers of the present century.
History of French Literature.
French Composition.

The German Language:—

Schiller—Die Braut von Messina.
Lessing—Hamburgische Dramaturgie, from the beginning to 12th Stück; Laokoon.
Extracts from writers of the present century.
History of German Literature.
German Composition.

Modern History:—

Hallam's Middle Ages, Chap. I. (last edition, with the notes).
Lingard—History of England, from the Norman Conquest to the accession of Henry IV.

III.—MATHEMATICS.

The Mathematical Course appointed for the Science Scholarship of the second year; theory of Algebraical Equations, including their numerical solution; Analytic Geometry of two and of three dimensions; Differential and Integral Calculus, including its application to Geometry.

IV.—NATURAL PHILOSOPHY.

Tódhunter's Statics.
Tait and Steele's Dynamics, and Routh's Dynamics of a Rigid body.
Walton's Hydrostatical Problems.
Parkinson's Optics.
Hymer's Astronomy.
Jàmin's Traité de Physique.
Lloyd's Lectures on the Wave Theory of Light.
The Professor's Lectures to the Honor Class of the Third Year.

V.—METAPHYSICAL AND ECONOMIC SCIENCE.

Metaphysics:—

Descartes—Meditationes de Prima Philosophia.
Sir William Hamilton—Lectures on Metaphysics, Vol. II.
Mill—Examination of Sir William Hamilton's Philosophy, Lectures XVII. to XXIII., both inclusive.
Webb—Intellectualism of Locke.

Jurisprudence:—

Jurisprudence as treated in the Professor's Lectures.
Austin's Jurisprudence.
Stephens' (James Fitzjames) Criminal Law of England.
Maine's Ancient Law.
Lord Mackenzie's Roman Law.

Political Economy:—

Political Economy as treated in the Professor's Lectures.
Mill's Principles of Political Economy.
Ricardo's Political Economy, chapters VII. to XVI.
Senior's Political Economy.
Cairnes' Logical Method of Political Economy.
Göschen's Foreign Exchanges.

Appendix, No. 1.

VI.—CHEMISTRY.

Theoretical Chemistry:—

Miller's Element of Chemistry (third edition).
Wurtz' Introduction to Chemical Philosophy.
Hoffman's Modern Chemistry.
Watt's Dictionary of Chemistry.
Fowne's Chemistry (tenth edition).

Practical Chemistry:—

Analysis, and an acquaintance with Manipulation to the extent to which it is carried out in the *Practical Course* prescribed for Medical Students will be considered the minimum. (Bowman's Introduction to Practical Chemistry is recommended.)

VII.—NATURAL HISTORY.

Henfrey's Botany (second edition).
Rolleston's Animal Forms.
Dallas's Animal Kingdom; Nickolson's Zoology.
Whewell's Philosophy of the Inductive Sciences, Vol. I., Book VII., chap. i., Book VIII., chaps. i., ii., iv., Book IX., chap. vi.
Whewell's History of the Inductive Sciences, Vol. III., Books XVI., XVII.
Practical Examinations in Botany and Zoology.

PRACTICAL COURSE FOR COMMERCIAL AND GENERAL PURSUITS.

In order to extend the advantages of higher education to youths intended for commercial and general pursuits, the Senate has resolved to institute special courses of instruction, and to grant Diplomas, conferring the title of Licentiate in Arts, under the following conditions:—

1. To have matriculated in one of the Colleges of the Queen's University.
2. To have pursued, in one of the Colleges of the Queen's University, the course herein prescribed.
3. To have passed the University Examination herein prescribed.

The studies for the Diploma of Licentiate in Arts extend over two Sessions, and comprise attendance on the following Curriculum:—

FIRST SESSION.

Two Languages, of which one may be English.
Mathematics.
Another Course on any subject in the annexed list.

SECOND SESSION.

Greek, Latin, or a Modern Continental Language.
Logic (one Term).
Natural Philosophy.
And two other Courses on subjects in the annexed list.

If any of the courses, except that on Logic, extend over one term only, some other course from the annexed list must be attended as a supplement to it, but not necessarily in the same Session.

Credit will not be given for attending the same course of Lectures a second time.

Attendance on the courses is, in all cases, understood to include passing such Examinations as the College Council shall appoint, and the catechetical parts of the courses of Lectures.

Candidates for the Diploma of Licentiate in Arts must reside at their respective Colleges during at least the first two terms of each Session.

After having completed the above curriculum, each Candidate for the Diploma is required to pass a University Examination in either Greek, Latin, or a Modern Continental Language; in Mathematical Science;

and in two other subjects which he is allowed to select from the annexed list, viz.:— *Appendix, No. 1.*

The Mathematical Sciences.	The Modern Continental Languages.
The Experimental Sciences.	Greek.
The Natural Sciences.	Latin.
Geometrical Drawing.	Logic.
Mensuration, Levelling, and Mapping.	Metaphysics.
Anatomy and Physiology.	History.
English Language and Literature.	Political Economy.

English Composition forms a part of all University Examinations.

Licentiates in Arts who may desire to proceed to the Degree of Bachelor in Arts, may enter directly on the second Session in the course for this Degree, provided they attend in it, instead of the usual curriculum, all the courses prescribed for the first two years which they shall not have already attended in the curriculum for the Diploma of Licentiate.

In compliance with the first of the above specified conditions, the Council of the Queen's College, Galway, has instituted the following course for the Matriculation Examination:—

MATHEMATICS.

Arithmetic—Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—Including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

GEOGRAPHY AND THE ENGLISH LANGUAGE.

Geography—Ancient and Modern, Outlines of.
Grammar—English Grammar and Composition.

The Council will confer two Exhibitions—one of the value of £16, and one of the value of £12—on the best answerers in the Course for Matriculation, should their answering be found to deserve such a reward.

Candidates for Exhibitions shall be allowed to offer, in addition to the subjects of the ordinary Matriculation Examination, one or two, but not more, of the following subjects:—

Latin, French, German, Chemistry, Natural Philosophy, Natural History; these subjects to be of equal value with the ordinary subjects, and with each other.

No Student who has held a Scholarship or Exhibition in any of the existing Faculties or Schools shall be admitted a Candidate for these Exhibitions.

FACULTY OF LAW.

Diploma of Elementary Law.

Candidates for the Diploma of Elementary Law are required to pass a matriculation Examination in the following subjects:—

GREEK.

Xenophon—Anabasis, Book I.
Grammar.

LATIN.

One of the following authors:—

Cæsar—Gallic War, Book V.
Virgil—Æneid, Book I.
Retranslation from English into Latin of portions of Cæsar.

HISTORY AND THE ENGLISH LANGUAGE.

History—Outlines of Grecian and Roman History.
Geography—Outlines of Ancient and Modern Geography.
English—English Grammar and Composition.

MATHEMATICS.

Arithmetic—including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.
Algebra—including Fractions, Proportion, and the Solution of Simple Equations.
Geometry—Euclid, Books I., II.

Appendix No. 1.

Students who have passed the Matriculation Examination, and have pursued, during three years, the following courses of study, are admitted to Examination for the Diploma of Elementary Law :—

FIRST YEAR.

The Law of Property, and the Principles of Conveyancing.
Jurisprudence.

SECOND YEAR.

Equity and Bankruptcy.
Civil Law.

THIRD YEAR.

Common and Criminal Law.

Candidates who shall have passed the First and Second Sessions of the curriculum for the Degree of B.A., before entering on their legal studies, will be admitted to the Examination for the Diploma after attending a two years' curriculum in Law, if recommended by the Council of their College. Other Candidates shall attend Law Courses for three Sessions before presenting themselves.

JUNIOR SCHOLARSHIPS IN LAW.

Of the three Junior Scholarships appropriated to the Faculty of Law, one is awarded to a Student of the First Year, one to a Student of the Second Year, and one to a Student of the Third Year.

SUBJECTS OF EXAMINATION.—FIRST YEAR.

LAW OF PROPERTY, &c.

Williams' Real Property.

JURISPRUDENCE AND CIVIL LAW.

Review of Austin's Jurisprudence, by J. S. Mill (*Edinburgh Review*, October, 1863; or Mill's Dissertations and Essays, Vol. III.)
Maine's Ancient Law, Chaps. I., II., III., V., IX.
Sandars' Institutes of Justinian, Introduction.

SECOND YEAR.

All the business of the preceding Session.

EQUITY.

Smith's Manual of Equity Jurisprudence.

LAW OF PROPERTY, &c.

Williams' Personal Property; Smith's Lectures on the Law of Contracts.

JURISPRUDENCE AND CIVIL LAW.

The same as the course for the first year, together with

Jurisprudence as treated in the Professor's Lectures.
Austin's Jurisprudence, Vol. I., third edition.
Sandars' Justinian, Books I. and II.
Stephens' Criminal Law of England, chaps. I., III., IV., V.
Maine's Ancient Law.
Mackenzie's Roman Law.

THIRD YEAR.

All the business of the two preceding Sessions.

LAW.

Broom's Commentaries on the Common Law, Books II., III., and IV.
White and Tudor's Leading Cases in Equity, Vol. I.

JURISPRUDENCE AND CIVIL LAW.

The same as the course for the second year, together with

Jurisprudence as treated in the Professor's Lectures.
The remainder of Stephens' Criminal Law of England.
The remainder of Austin's Jurisprudence.
The remainder of Sandars' Justinian.

THE DEGREES OF LL.B. AND LL.D.

Candidates for the Degree of LL.B. are admitted to Examination for that Degree from the Queen's University in Ireland, one year after they have obtained the Degree of B.A., and completed the above curriculum for the Diploma in Elementary Law.

Candidates for the Degree of LL.D. are admitted to Examination for that Degree from the Queen's University in Ireland, at the expiration of two years after they have obtained the Degree of LL.B.

SENIOR SCHOLARSHIP.

The College is empowered to award one Scholarship of the value of forty pounds, by Examination, to the most distinguished Student who shall have proceeded to the Degree of B.A., and who shall have completed the Course of legal study prescribed to candidates for the Degree of LL.B. The following is the course prescribed for Examination:—

JURISPRUDENCE AND CIVIL LAW.

The same as the course in these subjects for the third year's Scholarship, together with

Spence's Equitable Jurisdiction of the Court of Chancery, part I.

PRINCIPLES OF CONSTITUTIONAL AND INTERNATIONAL LAW.

Hallam's Constitutional History of England; Kent's "Lectures on International Law" (prefixed to his "Commentaries"); Letters of "Historicus."

ENGLISH LAW.

All the business of the preceding Sessions, together with

Jarman on Wills; Sugden on Powers; Taylor on Evidence.

PRIVILEGES OF LAW STUDENTS.

By the recent regulations of the Benchers of the King's Inns, candidates for the Bar who attend the Law Lectures in the Queen's Colleges, possess the same privileges as Students who attend the Lectures in Trinity College, Dublin.

Students intending to proceed for the Certificate of the Law Professors, so as to entitle them to serve an apprenticeship of *four* years instead of *five*, under the provisions of *an Act for amending the several Acts for the Regulations of Attorneys and Solicitors* (14 and 15 Vict., cap. 88), are required to enter their names with the Registrar, *either as Matriculated or Non-Matriculated* Students, and pay the necessary College and Class Fees to the Bursar before the commencement of the Law Lectures in each Session.

Such Students are required to attend all the Lectures and pass all the Examinations prescribed for the first and second years of the course of study for candidates for the Diploma of Elementary Law.

FACULTY OF MEDICINE.

DEGREES OF M.D. AND M.CH.

Each Candidate for the Degree of Doctor in Medicine, or Master in Surgery, is required—

1. To have passed in one of the Colleges of the Queen's University the Entrance Examination in Arts, and to have been admitted a Matriculated Student of the University.
2. To have attended in one of the Queen's Colleges, Lectures on one Modern Continental Language for six months, and Lectures on Natural Philosophy for six months.
3. To have also attended, in some one of the Queen's Colleges, at least two of the courses of Lectures marked with an asterisk in the following list. For the remainder of the courses, authenticated certificates will be received from the Professors or Lecturers in Universities, Colleges, or Schools, recognised by the Senate of the Queen's University in Ireland.
4. To pass two University Examinations—the First University Examination and the Degree Examination.

Appendix, No. 1.

The curriculum shall extend over at least four years, and shall be divided into periods of at least two years each.

Candidates are recommended to pass the Matriculation Examination, prior to entering on the second period.

It is recommended that the first period shall comprise attendance on the following courses of medical lectures :—

*Chemistry.
*Botany with Herborizations for practical study, and Zoology.
*Anatomy and Physiology.
*Practical Anatomy.
*Materia Medica and Pharmacy.

And that the second period shall comprise attendance on the following courses of medical lectures :—

Anatomy and Physiology (*second course*).
Practical Anatomy (*second course*).
*Theory and Practice of Surgery.
*Midwifery.
*Theory and Practice of Medicine.
*Medical Jurisprudence.

In addition to the above courses of lectures, candidates shall have attended, during either the first or second period—

A Modern Continental Language (in one of the Colleges of the University).
Experimental Physics (in one of the Colleges of the University).

Also, during the first period—

Practical Chemistry (in a recognised Laboratory).
Medico-Chirurgical Hospital (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered, at least two each week—a winter session of six months.

And during the second period—

Practical Midwifery, at a recognised Midwifery Hospital, with the clinical lectures therein delivered, for a period of three months; or a Midwifery Dispensary for the same period; or ten cases of Labour under the superintendence of the Medical Officer of any hospital or dispensary where cases of labour are treated.
Medico-Chirurgical Hospital (recognised by the Senate), containing at least sixty beds; together with the clinical lectures therein delivered—eighteen months; including either three winter sessions of six months each, or two winter sessions of six months each, and two summer sessions of three months each.

Medical Examinations are held in June, and in September and October.

The June Examinations are Pass Examinations, and commence on the Friday preceding the second Saturday in June.

The Honor Examinations commence on the last Tuesday in September, and are followed by Pass Examinations.

Each candidate for examination in June must forward to the Secretary, on or before the first of June, notice of his intention to offer himself as a candidate, along with his certificates; and each candidate for examination in September or October must forward similar notice, along with his certificates, on or before the first of September.

The First University Examination in Medicine.

The First University Examination may be passed either in June or September.

It is competent for Students to present themselves for the First University Examination at the termination of the first period of the curriculum, or at any subsequent period.

Before being admitted to examination, each candidate must produce satisfactory evidence of having completed the course recommended for study during the first period of the curriculum.

The First University Examination comprises the subjects recommended

for study during the first period of the curriculum, along with which any Candidate may present himself for examination in Experimental Physics and Modern Languages, if he have already attended in one of the Queen's Colleges the prescribed courses on these subjects. *Appendix, No. 1.*

The course of Experimental Physics to be prepared is—

In Mechanics—Experimental proof of the parallelogram of forces; composition and resolution of parallel forces; conditions of equilibrium in the lever, wheel and axle, pulley, inclined plane, and screw; laws of motion—motion of falling bodies.

In Hydrostatics—Equilibrium of fluids; pressure of fluids on plane surfaces; methods of determining the specific gravity of solids, liquids, or gases; method of measuring the pressure of the atmosphere; Mariotte's law; construction and principle of syphon, the several apparatus employed for raising water, barometer, manometer, air pump.

In Acoustics—Cause of sound; its propagation and velocity in solids, liquids, or gases; reflexion and refraction of sound; numerical evaluation of musical sounds; construction of syren; use of monochord.

In Heat—Construction and use of thermometers and pyrometers; laws of the expansion of solids, liquids, and gases; fusion and solidification; specific heat; latent heat; action of freezing mixtures.

In Light—Experimental proofs of laws of reflexion and refraction; formation of images by plane and spherical mirrors and by lenses; analysis of solar light; dispersion produced by a prism or lens; achromatic prism; achromatic lens; simple and compound microscope; polarization of light by reflexion; by transmission; colours of polarized light.

In Magnetism—Natural and artificial magnets; neutral line and poles; mutual action of magnets; hypothesis of two magnetic fluids; magnetic induction; terrestrial magnetism; directive action of the earth; magnetic meridian; magnetic declination; inclination; intensity; methods of measuring their amount and variations.

In Electricity—Development by friction; conductors and non-conductors; mutual action of bodies charged with electricity; measurement of electrical attractions and repulsions; theories of electricity; electrical induction; electroscopes and electrical machines; Leyden jar; properties of electricity—mechanical, thermal, chemical, magnetic, physiological.

Voltaic pile and its modifications; single and two fluid batteries; direction of current in battery; chemical, thermal, and luminous effects of battery; induction of currents by currents; mutual action of currents and magnets; galvanometers; application of electricity to telegraphy; induction coil.

The portions of Zoology to be prepared are—

a. The general characters of the classes of the Animal Kingdom.
b. The first principles of Animal Physiology.
c. The comparative Anatomy and Classification of either the *Vertebrate* or the *Invertebrate* Animals—whichever is selected by the candidate.
d. A special practical knowledge of the leading characters and classification of either some one Vertebrate class, or some one Invertebrate sub-kingdom.

In Botany Candidates will be examined in the general principles of Vegetable Structure and Organography. They will also be expected to possess a practical acquaintance with the characters of the following natural orders, viz.:—Ranunculaceæ, Cruciferæ, Rosaceæ, Leguminosæ, Umbelliferæ, Compositæ, Solanaceæ, Labiatæ, Euphorbiaceæ, Amentiferæ, Coniferæ, Aroideæ, Orchideæ, Scrophulariaceæ, Boraginaceæ, Liliaceæ, and Gramineæ.

Henfrey's Elementary Course of Botany is recommended as the Text-Book.

English Composition forms a part of all University Examinations.

Competitors for Honors will be examined in all the subjects of the First University Examination, including Experimental Physics and Modern Languages.

Two Exhibitions, one consisting of two instalments of £20 each, the other of two instalments of £15 each, will be awarded to the best answerers at the Honor Examinations, if they be recommended by the Examiners as possessed of sufficient absolute merit. Further regulations regarding these Exhibitions will be found in p. 38.

The candidates who pass with Honors will be arranged in three classes.

Appendix, No. 1.

Candidates who postpone passing their First Medical Examination until they present themselves at the Degree Examination are not eligible for Honors with the First Examination.

Both Honor and Pass Examinations will be held in September. The Examination held in June is a Pass Examination.

Degree Examinations in Medicine.

Examinations for the Degrees of M.D. and M.Ch. will be held in June and September.

The Fee for each Degree is Five Pounds, and must be lodged with the Secretary before the Examination begins.

Each Candidate must be recommended by the President of his College, and produce certificates to the following effect:—

1. A certificate from the Secretary of the Queen's University, that he has passed the Previous Examination, unless the candidate present himself for both Examinations simultaneously.
2. From the Council of his College, that he has passed a full Examination in the subjects of study prescribed in the entrance Course of the Faculty of Arts, and has been admitted a Matriculated Student in the Faculty of Medicine.
3. That he has attended in the Colleges of the Queen's University two of the courses marked with an asterisk on p. 26, lectures on one Modern Language, and lectures on Experimental Physics.
4. Certificates that he has completed all other prescribed courses.

The Examination for the Degree of M.D. comprises the subjects recommended for study during the second period of medical education, along with Experimental Physics and one Modern Language, unless an Examination in these subjects shall have been already passed at the First University Examination.

The Examination for the Degree of M.Ch. comprises in addition an Examination in Operative Surgery.*

Candidates who graduate with Honors will be arranged in three classes. Candidates who take a First Class will receive a Medal and Prize. Candidates who take a Second Class will receive a Prize. Candidates who take a Third Class will receive a Certificate of Honor.

The Examination for the Degree with Honors will commence on the last Tuesday in September, and will be followed by the Examination of those candidates who seek to graduate without Honors.

The Examination held in June is a Pass Examination.

Matriculation.

Candidates for the Degree of M.D. in the Queen's University are required to pass a Matriculation Examination in the following subjects:—

GREEK.

Xenophon—The Anabasis, Book I.
Grammar.

LATIN.

One of the following authors:—

Virgil—Æneid, Book I.
Cæsar—Gallic War, Book V.
Retranslation from English into Latin of portions of Cæsar.

ENGLISH.

Grammar and Composition.

* Candidates for the Degree of Master in Surgery, who obtained the Degree of M.D. in this University before the 1st of January, 1865, will be exempted from the Examination in Operative Surgery.

MATHEMATICS.

Arithmetic and Algebra :—

The First four Rules of Arithmetic; Vulgar and Decimal Fractions; the Rule of Three; Addition, Subtraction, Multiplication, and Division of Algebraical Quantities; Simple Equations.

Geometry :—

Euclid, Books I. and II.

HISTORY AND GEOGRAPHY.

History :—

Outlines of Grecian and Roman History.

Geography :—

Outlines of Ancient and Modern Geography.*

DAYS AND HOURS OF LECTURES.

	Subjects.	Months.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Period.	French,	VI.	10	4	10	10	.	12
	German,	VI.	.	2	.	2	.	.
	Botany and Zoology,	VI.	.	11	.	11	10	11
	Experimental Physics,	VI.	.	12	.	12	.	.
	Chemistry,	VI.	12	.	12	.	12	12
	Logic,		1	.	1	.	1	.
	Anatomy and Physiology,		3	3	3	3	3	.
	Practical Anatomy,		1	1	1	1	1	.
	Practical Chemistry,		2	.	2	.	2	.
	Materia Medica,		4	.	4	.	4	.
2nd Period.	Practical Anatomy,		1	1	1	1	1	.
	Anatomy and Physiology,		3	3	3	3	3	.
	Surgery,		11	.	11	.	11	.
	Midwifery,		2	.	2	.	2	1
	Medicine,		.	2	.	2	.	2
	Medical Jurisprudence,		.	4	.	4	.	4

The lectures of the Professors are fully recognised by the Queen's University, the Universities of Dublin, London, Oxford, Glasgow, Durham; the University and King's College, Aberdeen; the College of Physicians, London; the Royal Colleges of Surgeons in Ireland, England, and Scotland; the Faculty of Physicians and Surgeons, Glasgow; the Apothecaries' Halls of Dublin and London; the Army, Navy, and East India Medical Boards.†

SCHOLARSHIPS.

Eight Junior Scholarships are appropriated to the Faculty of Medicine of the value of £25 each. Of these—

Two are allotted to Students of the First Year.
Two " " Second Year.
Two " " Third Year.
Two " " Fourth Year.

* Rev. T. K. Arnold's Handbooks are recommended.

† Opportunities for Hospital attendance and Clinical Instruction are afforded to Students in the County Infirmary and Town Hospitals, which are in the immediate vicinity of the College. These Hospitals are open to Students every morning, and Clinical Lectures are delivered by the medical officers. All communications respecting the Hospitals should be addressed to the Secretary of the Clinical Board, to whom the fee of £4 is payable. Certificates of attendance on the Galway Hospitals and Clinical Lectures are accepted by the several other licensing bodies in the United Kingdom as well as by the Queen's University.

Appendix, No. 1.

Regulations respecting Medical Scholarships and Exhibitions.

(Scholars are required to pay only one-half of the ordinary class fee for each obligatory course of lectures.)

All Scholars and Exhibitioners are required to pass the Sessional Examination.

First Year's Scholarships.

All Students who have passed the Matriculation Examination may compete for the Scholarships of the first year.

For the one Scholarship the Examination will embrace the course prescribed for the Literary Scholarships of the first year, in the Faculty of Arts.

For the other Scholarship the course prescribed for Science Scholarships of the first year in the Faculty of Arts.

If at either of these Examinations a competent candidate do not present himself, the Scholarship assigned to that department may be awarded to the other department, if there be in the latter a second candidate duly qualified.

A Student to whom a Scholarship of the first year has been awarded, shall attend the following courses:—

A Modern Language.
Natural Philosophy.
Anatomy.
Chemistry.
Botany and Zoology.

Second Year's Scholarships.

To be allowed to compete for a Scholarship of the second year, a Student must be of not more than one year's standing in some school recognised by the Senate of the Queen's University.

A Candidate may select for the subjects of his Examination any four of the following subjects, of which Practical Anatomy, or Anatomy and Physiology, must be one. The number placed opposite each subject in the following list shall be the standard mark, and no mark under 100 shall be taken into account in any subject:—

Anatomy and Physiology, or Practical Anatomy, .	1,000
Chemistry, ...	500
Botany and Zoology, ...	500
A Modern Language, ...	500
Natural Philosophy, ...	500
Materia Medica, ...	500

SUBJECTS OF EXAMINATION.

FRENCH.*

Mignet—Révolution Française.
Molière—Misanthrope.
French Grammar.
Translation from English into French.

GERMAN.*

Schiller—Wilhelm Tell, Acts I. and II.; the Minor Poems.
German Grammar.

Natural Philosophy.—Elements of Mechanics, Hydrostatics, Pneumatics, Optics, Heat, and Electricity.

Zoology.—Vertebrata.

Botany.—Structural and Physiological Botany; Principles of Classification; Characters of the Natural Orders yielding medicinal plants.

Anatomy and Physiology.—General Histology and the Organs and Functions of Digestion and Urination.

* The candidate may select either French or German.

PRACTICAL ANATOMY.—Osteology and Arthrology, also the Myology of the limbs.

CHEMISTRY.—General Principles of Chemical Philosophy; Laws of Combination by weight and volume; Atomic Theory; Nature of Salts, &c.; Chemistry of non-metallic bodies; Chemistry of Metals; Organic Chemistry.

A Student to whom a Scholarship of the second year has been awarded shall attend such of the medical courses assigned to the first period of the curriculum prescribed in the University regulations as he has not already taken. He shall also take a course of Modern Languages and of Natural Philosophy, if he have not previously done so in a Queen's College.

THIRD YEAR'S SCHOLARSHIPS.

To be allowed to compete for a Scholarship of the third year, a Student must have attended, in some medical school recognised by the Senate of the Queen's University, four of the following courses :—

Anatomy and Physiology.	Practical Chemistry.
Chemistry.	Practical Anatomy.
Botany.	Materia Medica.
Zoology.	

And must not be of more than two years' standing.

The Examination shall include the following subjects. The number placed opposite each subject in the following list shall be the standard mark; and no mark under 300 shall be taken into account in either of the first named, nor under 200 in the last named :—

Practical Anatomy,	1,000
Materia Medica and Therapeutics,	1,000
Practical Chemistry,	500

SUBJECTS OF EXAMINATION.

PRACTICAL ANATOMY.—Joints, Muscles, Vessels, Viscera, and Brain.

During the Examination, Candidates may be called on to describe structures placed before them.

MATERIA MEDICA.—Tonics, Alkaloids, Cathartics, Diuretics, Narcotics.

Symptoms indicating their unhealthy action, and treatment to counteract such action.

PRACTICAL CHEMISTRY.—As taught in the class.

A Student to whom a third year's Scholarship has been awarded, shall attend, during the year of his election, four at least of the courses prescribed for the second period in the University regulations.

FOURTH YEAR'S SCHOLARSHIPS.

To be allowed to compete for a Scholarship of the fourth year, the candidate must have attended, in some school recognised by the Senate of the Queen's University, all the strictly professional courses of the first period, and must have attended three at least of those of the second period prescribed in the regulations of the Queen's University, and must not be of more than three years' standing.

A candidate for fourth year's Scholarship may choose any four of the following subjects, provided he has attended lectures upon them, as those in which he shall be examined. The number assigned to each subject in the following list shall be the standard mark, and no mark under 300 shall be taken into account :—

Anatomy and Physiology,	1,000
Practical Anatomy,	1,000
Theory and Practice of Surgery,	1,000
Midwifery and Diseases of Women and Children,	1,000
Theory and Practice of Medicine,	1,000
Medical Jurisprudence,	1,000
Materia Medica,	1,000

Appendix, No. 1.

SUBJECTS OF EXAMINATION.

ANATOMY AND PHYSIOLOGY.—Nervous System, and Organs of Special Sense.

PRACTICAL ANATOMY.—Surgical Anatomy.

THERAPEUTICS AND PATHOLOGY.—1. Candidates must be prepared to answer in any part of the previous course of lectures in Materia Medica; Poisonous actions of Medicaments; their symptoms and tests. They will also be required to write prescriptions in proper form on given subjects.

2. Diseases of the Heart and Lungs.

3. Diseases of Bone; Tumours.

4. Human Fœtus and its involucra; abortion; diseases of parturient women; diseases of childhood.

A Student to whom a Scholarship of the fourth year has been awarded shall attend during the year of his election two at least of the practical courses prescribed for the second period in the University regulations; and if more courses are required to complete the curriculum, both as to professional and non-professional subjects, he shall also attend them.

NON-MATRICULATED STUDENTS.

Any course or courses of lectures may be attended by Non-Matriculated Students, without passing any examination, on paying the regulated class fee to each Professor whose lectures they attend. Such Students are admissible to the Library on payment of a fee of Five Shillings for the year.

SCHOOL OF CIVIL ENGINEERING.

Candidates for the Diploma in Civil Engineering are required:—

1. To have been admitted Matriculated Students of one of the Colleges of the Queen's University in the Department of Civil Engineering.
2. To have studied in the Colleges of the Queen's University the course herein prescribed.
3. To have passed two University Examinations.

Candidates for Matriculation are examined in the following subjects:—

MATHEMATICS.

Arithmetic:—

Including Vulgar and Decimal Fractions, the Rule of Three, Simple Interest, and the Extraction of the Square Root.

Algebra:—

Including Fractions, Proportion, and the Solution of Simple Equations.

Geometry:—

Euclid, Books I., II., III., VI., with Definitions of Book V.

HISTORY, GEOGRAPHY, AND THE ENGLISH LANGUAGE.

History:—

Outlines of Ancient History.

Geography:—

Outlines of Ancient and Modern Geography.

English:—

English Grammar and Composition.

The course for the Diploma in Civil Engineering usually extends over three Sessions, and comprises attendance on the following curriculum:—

FIRST SESSION.

Mathematics (first course).
Chemistry.
A Modern Language.
Geometrical Drawing.
Office Work.

SECOND SESSION.

Mathematics (second course).
Mathematical Physics.
Experimental Physics.
Civil Engineering.
Office Work.
Field Work.

THIRD SESSION.

Natural Philosophy (applied).
Civil and Mechanical Engineering.
Mineralogy, Geology, and Physical Geography.
Office Work.
Field Work.
Engineering Excursions.

Attendance on these courses in all cases includes passing such Examinations as may be appointed by the College Council, as well as the catechetical parts of the courses of lectures.

Engineering Students must reside at their respective Colleges during at least the first two Terms of each Session, and can be exempted from residence during the third Term also, only by a special grace of the College Council.

The study of the Engineering Curriculum may be extended over more than three Sessions, on the recommendation of the College Council, and under such regulations as the Council shall impose. Some relaxation of the order in which the subjects shall be studied will be admitted, on the recommendation of the Council.

Candidates will, on the special recommendation of the College Council, be admitted to the Diploma after two years' residence instead of three, if their previous acquaintance with a sufficient group of the subjects above set down for study in the first and second Sessions is deemed by the Council satisfactory. In such cases the certificate of the Council will be accepted in lieu of attendance upon these courses, but will not exempt candidates from the University Examinations in them.

Candidates for the Diploma in Civil Engineering are required to pass two University Examinations,—the First University Examination which is held simultaneously in each of the Colleges of the University, and the Diploma Examination which is held in the Hall of the University in Dublin.

Students who have completed their second Session must attempt the First University Examination before rising to the third year, unless prevented by illness or other inevitable accident, in which case the Senate may admit them to a Supplementary Examination.

Candidates who have attempted, but failed to pass, the First University Examination in October, will be admitted to a Supplementary Examination.

FIRST UNIVERSITY EXAMINATION IN ENGINEERING.

The course for the First University Examination includes French; Geometrical Drawing; Mathematics (first course); Mathematics (second course); Mensuration, Levelling, and Mapping; Experimental Physics.

The Examination will be held shortly after the commencement of the College Session, upon days which will be appointed before the 1st of October.

Each candidate must forward to the Secretary, on or before the 1st of October, notice of his intention to offer himself as a candidate, and will thereupon receive intimation of the days upon which his Examination will be held.

Appendix, No. 1.

The candidates who pass with Honors will be arranged in three classes, the names in each class being placed alphabetically.

Two Exhibitions, one of the annual value of £20 for two years, the other of the annual value of £15 for two years, will be competed for at the Honor Examination. For the regulations regarding these Exhibitions see p. 37.

Examination for the Diploma in Civil Engineering.

The Examination for the Diploma in Civil Engineering will embrace the following course:—Engineering; Mensuration, Levelling and Mapping; Mathematical Physics; Natural Philosophy, applied; Chemistry; Mineralogy, Geology, and Physical Geography. Each candidate will also be required to produce at this Examination the Field-notes and Drawings of a Survey made by him.

Candidates who have completed the Engineering Course may present themselves as candidates for the Diploma, either with Honors or without Honors.

The Examinations for the Diploma in Civil Engineering will commence on the last Tuesday in September, and end on the second Tuesday in October. The Honor Examination will precede the Pass.

Each Candidate must forward to the Secretary, on or before the 1st of September, notice of his intention to offer himself as a candidate, and will thereupon receive intimation of the days upon which his Examination will be held.

The candidates who pass with Honors will be arranged in three classes; the names in each class will be placed alphabetically.

Candidates who take a First Class will receive a Medal and Prize.

Candidates who take a Second Class will receive a Prize.

Candidates who take a Third Class will receive a Certificate of Honor.

Candidates are recommended to provide themselves with drawing instruments and materials, viz.:—a T square; pair of set squares; pair of compasses, with pen and pencil legs; drawing-pen; 12-inch scale, divided on one edge decimally to two chains to an inch, and on the other side, duodecimally to five feet to an inch; an offset scale 20 and 40; also pencils, papers, colours, &c.

Days and Hours of Lectures.

	Subjects.	Terms.	Mon.	Tues.	Wed.	Thurs.	Friday.	Sat.
1st Year	French,	1, 2, 3,	10	.	10	10	.	.
	Chemistry,	1, 2, 3,	12	.	12	.	12	.
	Mathematics (pass),	1, 2, 3,	1	.	1	.	1	.
	Mathematics (honor),	1, 2, 3,	.	1	.	1	.	.
	Geometrical Drawing,	1, 2, 3,	11	.	11	.	11	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
2nd Year	Civil Engineering,	1, 2, 3,	10	.	10	.	10	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
	Mineralogy, &c.,	1, 2, 3,	1	.	1	.	1	.
	Mathematical Physics (pass),	.	12	.	12	.	.	.
	Experimental Physics (pass),	1, 2, 3,	.	12	.	12	.	.
	Experimental Physics (honor),	1, 2, 3,	11	.	11	.	.	.
	Mathematical Physics (honor),	1, 2, 3,	.	2	.	2	.	.
	Mathematics (honor),	1, 2, 3,	12	.	12	.	12	.
	Mathematics (pass),	1, 2, 3,	.	1	.	1	.	.
3rd Year	Civil Engineering,	1, 2, 3,	1	.	1	.	1	.
	Office Work,	1, 2, 3,	2	.	2	.	2	.
	Natural Philosophy (applied),	1, 2, 3,	.	11	.	.	.	11

SCHOLARSHIPS.

Of the five Scholarships appropriated to the Department of Engineering, two are awarded to Students of the first year, two to Students of the second year, and one to a Student of the third year.

SUBJECTS OF EXAMINATION—FIRST YEAR.

The course prescribed for Science Scholarship of the first year.

For this course, see p. 19.

SECOND YEAR.

The course of Elementary Mathematics prescribed for the Science Scholarship of the second year, together with the courses of Chemistry, Modern Languages as prescribed for Literary Scholarship of second year, Office Work, and Geometrical Drawing prescribed in the course for Students in Engineering of the first year.

THIRD YEAR.

The courses of Mathematics, Mathematical and Experimental Physics, Mineralogy and Geology, Engineering and Office Work, prescribed to Honor Students of the second year.

INDIAN ENGINEERING ESTABLISHMENT.

For the regulations for the Competitive Examination for appointments in the Indian Engineering Establishment see Appendix.

Two of the three years which candidates for the Civil Engineering Department of the Indian Service are required to pass in the office of a Civil Engineer are dispensed with in favour of Students who have studied for two years in the Engineering School of this College.

A highly advantageous arrangement has been made to enable such candidates to complete their qualifications by passing a year in the office of a Civil Engineer.

APPENDIX.

PRIZES FOUNDED BY PUBLIC SUBSCRIPTION.

At a public meeting of the University in October, 1861, Sir Robert Peel offered the sum of £1,200 to found three exhibitions* of £40 each, to be competed for annually for ten years; and he expressed his desire that these prizes should be tenable along with the small Scholarships attached to the Queen's Colleges, in order that his benefaction might have the effect of increasing the value of the rewards provided for the most deserving students.

When announcing this munificent gift, Sir Robert Peel invited others to co-operate with him in thus endeavouring to promote United Education, without adding to the burden on the public purse; and his invitation met with so ready a response, that it became necessary to form a Committee, which should take charge of the subscriptions, and make regulations for the proper allocation of the funds. This Committee consisted of Sir Robert Peel, Bart., M.P. (*Chairman*); the Duke of Leinster; the Lord Talbot de Malahide, F.R.S.; the Right Honorable Abraham Brewster, M.A., Q.C.; Sir James Emerson Tennent, LL.D.; James Naper, D.L.; Alexander Thom, Esq.; Sir Benjamin Lee Guinness, Bart.; William Malcomson, Esq.; and G. Johnstone Stoney, M.A., F.R.S. (*Honorary Secretary*).

* This allocation was afterwards changed, and Sir Robert Peel's benefaction merged in the general fund, in order that it might aid in establishing the connected series of prizes which the support of the public has enabled the Committee to found.

Appendix, No. 1.

Prizes which have been founded.

This munificence on the part of the public has enabled the Committee to found the following prizes, to be competed for annually for ten years; and to place at interest a considerable sum,* which will accumulate and form the nucleus of a fund for continuing these most useful aids to learning beyond that time.

Exhibitions in the Faculty of Arts.

Three exhibitions of £20 a year for three years, three exhibitions of £15 a year for three years, and two exhibitions of £10 a year for three years, will be competed for annually in the Faculty of Arts. The three £20 exhibitions will be awarded to the candidates who stand foremost in order of merit from each College at the First University Examination in Arts; and the three £15 exhibitions to the candidates who stand second in order of merit from each College; provided that their names appear in the First Class of the division list at that examination. Of the two £10 exhibitions, one will be awarded to the best answerer in Mathematical Science, and the other to the best answerer in the Ancient Classics at the First University Examination. The £10 exhibitions are open to the competition of candidates from all the Colleges, and may be held along with one of the larger exhibitions.

Each candidate will be deemed a Student of that College in which he shall have attended the Lectures of the Second Session; and no Student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The first instalment of each exhibition will be paid at the time of competition; the second when the exhibitioner takes the Degree of B.A. in the Queen's University, provided he graduate with honors, and within two academic years; and the third when he takes the Degree of M.A. in the Queen's University, provided he obtain it within three academic years from the time of competition.

Exhibitions in the Faculty of Medicine.

Two exhibitions—one consisting of two instalments of £20 each, and the other of two instalments of £15 each—will be competed for annually in the Faculty of Medicine. These exhibitions will be awarded for proficiency in the non-professional part of the First University Examination in Medicine: the £20 exhibition to the best answerer absolutely, in whichever of the Colleges he may have been educated; and the £15 exhibition to the candidate who is first in order of merit of the competitors from the other two Colleges: provided that their names appear in the First Class of the division list at that examination.

Each candidate will be deemed a student of that College in which he shall have attended the lectures of the Second Session; and no student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The exhibitions in Medicine will be paid in two equal instalments: one at the time of competition; the other when the exhibitioner takes the Degree of M.D. in the Queen's University, provided that he graduate with honors, and within three academic years from the time of competition.

* £1,980 has been already invested, and the sum reserved for accumulation will probably be soon raised to £3,000. It is the intention of the Committee to add to the reserve fund whatever further sums may be at their disposal from lapsed exhibitions or other sources; as it is very important that the assistance which is now being afforded for ten years to students in the Queen's Colleges should not be allowed to come abruptly to an end at the close of that period.

Exhibitions in the School of Engineering.

Two exhibitions—one of £20 a year for two years, and the other of £15 a year for two years—will be competed for annually in the School of Engineering. These exhibitions will be awarded at the First University Examination in Engineering: the £20 exhibition to the best answerer absolutely, in whichever of the Colleges he may have been educated; and the £15 exhibition to the candidate who is first in order of merit of the competitors from the other two Colleges: provided that their names appear in the First Class of the division list at that examination.

Each candidate will be deemed a student of that College in which he shall have attended the lectures of the Second Session; and no student will be admitted to the competition who shall have allowed more than a year to intervene between the time that he entered on the studies of the second year and the time of competition.

The first instalment of each exhibition will be paid at the time of competition; the other when the exhibitioner takes the Diploma in Engineering of the Queen's University, provided that he take honors with it, and obtain it within two academic years from the time of competition.

Prizes in Composition, open to the competition of Graduates and Undergraduates.

Two prizes for English prose composition—one of £10 worth of books, and the other of £5 worth of books—have been founded, and are open to the competition of all members of the University who shall not have been graduated for more than three years at the time of competition, and who shall not have already twice obtained one or other of these prizes.

Prizes in Composition, open to the competition of all Undergraduates.

Two prizes in composition—one for English prose, the other for Greek or Latin prose, and each consisting of £5 worth of books—have been founded, and are open to the competition of all undergraduates, provided that neither the English nor the Classical prize be awarded oftener than twice to any student.

Prize in Composition, limited to the competition of Undergraduates in Medicine.

A prize of £5 worth of books has been founded, for a thesis on a subject to be prescribed, and is limited to the competition of the undergraduates in Medicine who shall not have already twice received the prize.

The subjects on which the competitors for composition prizes are to write will be announced on or before the first of June in each year; the compositions, with fictitious signatures, are to be sent in to the Secretary of the University, on or before the first of the following September, and the successful competitors will be declared at the next public meeting of the University.

Prizes at Entrance.

Two prizes for English prose composition, and two prizes for Geometry, have been founded in each College, to be awarded annually at entrance: first prize for English prose composition, £3 worth of books; second do., £2 worth of books: first prize for Geometry, £3 worth of books; second do., £2 worth of books.

All the exhibitions and prizes now founded by public subscription shall be tenable along with any other scholarships, exhibitions, or prizes to which the successful competitors may be otherwise entitled.

Appendix, No. 1.

Persons who wish to add to this Fund may find the following forms of use :—

FORM OF DONATION.

I enclose Pounds sterling, and desire that this sum be expended in founding Exhibitions or other Prizes to encourage learning and promote industry among the Students and Graduates of the Queen's University in Ireland.

Dated at this day of , 186

(Signed),

To the Right Honorable
Sir ROBERT PEEL, Bart.,
Chairman of the Committee for augmenting the Endowments of the Queen's Colleges.

FORM OF SUBSCRIPTION FOR A TERM OF YEARS.

I enclose as the First Instalment of my Subscription to the *Fund for the Endowment of Prizes, in connexion with the Queen's University in Ireland*, and I will cause an equal sum to be lodged in the Bank of Ireland to the credit of the same Fund, before the first of January in *each* of the next years.

Dated this day of , 186

(Signed),

To the Right Honorable
Sir ROBERT PEEL, Bart.,
Chairman of the Committee for augmenting the Endowments of the Queen's Colleges.

EXAMINATIONS FOR THE CIVIL SERVICE OF INDIA.

REGULATIONS for the OPEN COMPETITION of 1871.*

1. On Tuesday, March 28th, 1871, and following days, an examination of candidates will be held in London. At this examination not fewer than candidates will be selected. if so many shall be found duly qualified. Of these, will be selected for the Presidency of Bengal [for the Upper Provinces, and for the Lower Provinces], for that of Madras, and for that of Bombay.†—Notice will hereafter be given of the days and place of examination.

2. Any person desirous of competing at this examination, must produce to the Civil Service Commissioners, before the 1st of February, 1871, evidence showing :—

(*a.*) That he is a natural born subject of Her Majesty.

(*b.*) That his age on the 1st March, 1871, will be above seventeen years and under twenty-one years. [*N.B.—In the case of Natives of India this must be certified by the Government of India, or of the Presidency or Province in which the Candidate may have resided.*]

(*c.*) That he has no disease, constitutional affection, or bodily infirmity, unfitting him, or likely to unfit him, for the Civil Service of India.‡

(*d.*) That he is of good moral character ;

and must also, before the 1st February, 1871, pay to the said Commissioners such fee as the Secretary of State for India may prescribe.§

3. Should the evidence upon the above points be *prima facie* satisfactory to the Civil Service Commissioners, the Candidate will, upon

* The regulations are liable to be altered in future years.

† The number of appointments to be made, and the number in each Presidency, &c., will be announced hereafter.

‡ Evidence of health and character must bear date not earlier than the 1st January 1871.

§ The Fee for this Examination will be £5.

payment of the prescribed fee, be admitted to the Examination. The Commissioners may, however, in their discretion, at any time prior to the grant of the Certificate of Qualification hereinafter referred to, institute such further inquiries as they may deem necessary; and if the result of such inquiries, in the case of any Candidate, should be unsatisfactory to them in any of the above respects, he will be ineligible for admission to the Civil Service of India, and if already selected, will be removed from the position of a Probationer. *Appendix, No. 1.*

4. The examination will take place only in the following branches of knowledge:—

	Marks.
English Composition,	500
History of England, including that of the Laws and Constitution,	500
English Language and Literature,	500
Language, Literature, and History of Greece,	750
" " Rome,	750
" " France,	375
" " Germany,	375
" " Italy,	375
Mathematics, Pure and Mixed,	1,250
Natural Science; that is, (1.) Chemistry, including Heat, (2.) Electricity and Magnetism, (3.) Geology and Mineralogy, (4.) Zoology, (5.) Botany,	1,000
*** The total (1,000 marks) may be obtained by adequate proficiency in any two or more of the five branches of science included under this head.	
Moral Sciences; that is, Logic, Mental and Moral Philosophy,	500
Sanskrit Language and Literature,	500
Arabic Language and Literature,	500

Candidates are at liberty to name, before February 1, 1871, any or all of these branches of knowledge. No subjects are *obligatory*.

5. The merit of the persons examined will be estimated by marks, and the number set opposite to each branch in the preceding regulation denotes the greatest number of marks that can be obtained in respect of it.

6. No candidate will be allowed any marks in respect of any subject of examination unless he shall be considered to possess a *competent knowledge* of that subject.*

7. The examination will be conducted by means of printed questions and written answers, and by *vivâ voce* examination, as may be deemed necessary.

8. The marks obtained by each candidate, in respect of each of the subjects in which he shall have been examined, will be added up, and the names of the candidates who shall have obtained a greater aggregate number of marks than any of the remaining candidates will be set forth in order of merit, and such candidates shall be deemed to be selected candidates for the Civil Service of India, provided they appear to be in other respects duly qualified; and shall be permitted to choose,† according to the order in which they stand, as long as a choice remains, the Presidency (and in Bengal, the division of the Presidency) to which they shall be appointed. Should any of the selected candidates become disqualified, the Secretary of State for India will determine whether the vacancy thus created shall be filled up or not. In the former case, the candidate next in order of merit and in other respects duly qualified, shall be deemed to be a selected candidate.

9. Selected candidates before proceeding to India will be on probation

* "Nothing can be further from our wish than to hold out premiums for knowledge of wide surface and of small depth. *We are of opinion that a candidate ought to be allowed no credit at all for taking up a subject in which he is a mere smatterer.*"—Report of Committee of 1854. A deduction of marks will be made under each subject, *including Mathematics*.

† This right must be exercised immediately after the result of the examination is announced, on such day as may be fixed by the Civil Service Commissioners.

Appendix, No. 1.

for two years, during which time they will be examined periodically, with the view of testing their progress in the following subjects* :—

	Marks.
1. Oriental Languages :—	
Sanskrit, ...	500
Vernacular† Languages of India (each), . . .	400
2. The History and Geography of India, ...	350
3. Law, ...	1,250
4. Political Economy, ...	350

In these examinations, as in the open competition, the merit of the candidates examined will be estimated by marks, and the number set opposite to each subject denotes the greatest number of marks that can be obtained in respect of it at any one examination. The examination will be conducted by means of printed questions and written answers, and by *viva voce* examination, as may be deemed necessary. The last of these examinations will be held at the close of the second year of probation, and will be called the "Final Examination," at which it will be decided whether a selected candidate is qualified for the Civil Service of India.

10. Any candidate who, at any of the periodical Examinations, shall appear to have wilfully neglected his studies, or to be physically incapacitated for pursuing the prescribed course of training, will be liable to have his name removed from the list of selected candidates.

11. No candidate will be permitted to proceed to India before he shall have passed the Final Examination, and received a certificate of qualification from the Civil Service Commissioners, or after he shall have attained the age of twenty-four years.

12. The selected candidates who at the Final Examination shall be found to have a competent knowledge of the subjects specified in Regulation 9, and who shall have satisfied the Civil Service Commissioners of their eligibility in respect of age, health, and character, shall be certified by the said Commissioners to be entitled to be appointed to the Civil Service of India, provided they shall comply with the regulations in force, at the time, for that Service.

13. The seniority in the Civil Service of India of the selected candidates shall be determined according to the order in which they stand on the list resulting from the Final Examination.

14. Applications from persons desirous to be admitted as candidates are to be addressed to the Secretary to the Civil Service Commissioners, London, S.W., from whom the proper form for the purpose may be obtained.

NOTE.—(1.) The Secretary of State for India in Council has authorized the Civil Service Commissioners to state that it is his intention to allow the sum of £50 after each of the three first half years of probation, and £150 after the last half year, to each selected candidate who shall have passed the required examinations to the satisfaction of the Commissioners, and shall have complied with such rules as may be laid down for the guidance of selected candidates.

(2.) All selected candidates will be required, after having passed the second periodical Examination, to attend at the India Office for the purpose of entering into an agreement binding themselves, amongst other things, to refund in certain cases the amount of their allowance in the event of their failing to proceed to India. For a candidate under age a surety will be required.

(3.) After passing the Final Examination each candidate will be required to attend again at the India Office, with the view of entering into covenants and giving a bond for £1000, jointly with two sureties, for the due fulfilment of the same. The stamps payable on these documents amount to £3 10*s*.

(4.) Candidates rejected at the Final Examination of 1873 will in no case be allowed to present themselves for re-examination.

* Full instructions as to the course of study to be pursued will be issued to the successful candidates as soon as possible after the result of the open competition is declared.

† Including, besides the languages prescribed for the several Presidencies, such other languages as may, with the approval of the Commissioners, be taken up as subjects of examination.

RULES of the HONORABLE SOCIETY of KING'S INNS, with regard to the ADMISSION of STUDENTS into the SOCIETY, and to the DEGREE of BARRISTER-AT-LAW. *Appendix, No. 1.*

I.—Every person desirous to be admitted a Student into this Society shall, in order thereto, present at the Under-Treasurer's Office, three clear days at the least before the first day of term, a memorial in the printed form, No. 1, which memorial is to be signed and lodged by the Student himself, and the certificate annexed thereto, signed by a practising Barrister of at least ten years' standing.

II.—Every Student, on presenting such memorial, shall produce a certificate of having paid at the Stamp Office the stamp duty of twenty-five pounds sterling, and also pay to the Under-Treasurer the sum of twenty-one pounds ten shillings and four pence, including five pounds five shillings for admission to the King's Inns Library, and five pounds five shillings for lectures under the recent system of legal education—the balance being the ancient fee for admission into the Society as a Student. Students of the Colleges of the Queen's University who shall elect to attend the courses of lectures in those Colleges, as hereafter provided, are exempted from paying the above sum of five guineas for lectures.

III.—Every Student not a graduate of the University of Dublin, Oxford, Cambridge, Durham, London, or the Queen's University in Ireland, shall keep nine Terms' Commons in the Dining Hall of the Society, and also eight Terms' Commons in one of the Four Inns of Court in London, and shall lodge, with the Under-Treasurer, a certificate of having kept said eight Terms' Commons in one of the said Inns of Court in London, on presenting his memorial to be admitted to the degree of Barrister-at-Law.

IV.—Every such Student, if a graduate of any of the said Universities, is only required to keep six Terms' Commons in the Dining Hall of the King's Inns, and also six Terms' Commons in one of the Inns of Court in London.

V.—Every Student admitted into the Society after the first day of Trinity Term, one thousand eight hundred and fifty, if a graduate of the University of Dublin, Oxford, Cambridge, Durham, or London, or the Queen's University in Ireland, shall, as a condition precedent to being called to the Bar, produce certificates of his having attended two complete courses *at least* of lectures—viz., One complete course of lectures of any two, at his option, of the four Law Professors—namely, the Law Professors of the University of Dublin, and those of the King's Inns, and *at least* five-sixths of the lectures of each session or University term; or if a graduate in arts of the Queen's University in Ireland, shall have the option of producing certificates of having attended two complete courses, at least, of lectures of each of the two Law Professors of any College of the Queen's University, comprising not less than thirty-six lectures, and at least five-sixths of the lectures of each course, and of having passed the examinations in the College to which he belongs, on the subjects of the aforesaid two courses of lectures, provided that the curriculum prescribed by the said two courses of lectures shall embrace all that is contained in the course now prescribed by the Professors of the King's Inns, or as the same may be from time to time varied by any rules of the Benchers.

VI.—Every Student admitted into the Society after the above date (if not a graduate of one of the said Universities) shall, as a condition precedent to being called to the Bar, produce certificates of his having attended four courses of lectures—viz., One course of the lectures of each of the said four Professors, and *at least* five-sixths of the lectures of each session or University term, in such manner, however, that every such Student shall be engaged not less than three years in the study of the law in Ireland, exclusive of the two years necessary for keeping terms in Eng-

Appendix, No. 1.

land, in every one of which three years, one complete course of lectures must be kept; any Student who shall produce certificates of his having attended during three years the courses of lectures delivered by the Professors of English Law and of Jurisprudence, in one of the Colleges of the Queen's University, and of his having passed the general examinations in such College on the subjects so lectured on, shall be deemed entitled to such and the same privileges, in respect to his being called to the Bar, as if he had actually attended one course of the lectures of each of the two Law Professors of the University of Dublin, and had been engaged for two years in such attendance; but this rule and the preceding one are not intended to affect the number of Terms' Commons required by the present rules of the Society, to be kept by Students of the King's Inns, prior to being called to the Bar.

VII.—If from illness or other sufficient cause any Student should be prevented from completing any course of lectures necessary towards being called to the Bar, the Legal Education Committee have power to direct what further attendance, if any, shall be sufficient in such case.—Rules as to Legal Education, No. 3.

VIII.—Every such Student, having complied with the foregoing Rules, desiring to be admitted to the degree of Barrister-at-Law, and being of the full age of twenty-one years, shall present a memorial in the printed form No. 2, at the Under-Treasurer's Office, three clear days at the least before the first day of term, said memorial to be signed by the Student himself; the certificate annexed thereto to be signed by a practising Barrister of at least ten years' standing, and the declaration at foot thereof by a Bencher.

IX.—Every such Student so applying for admission to the degree of a Barrister-at-Law shall, on presenting his said memorial, pay to the Under-Treasurer the sum of thirty-two pounds eighteen shillings and nine pence, being the ancient fee payable to the Society thereon, and lodge at the same time a certificate of having paid fifty pounds stamp duty at the Stamp Office; also a certificate of having kept the requisite number of terms from one of the Inns of Court in England; and if a graduate of any of the said Universities, shall also lodge a testimonium from such University of having obtained the degree of Bachelor of Arts or Bachelor of Law therein.

APPENDIX, No. 2.

SCHOLARSHIP EXAMINATIONS, 1870.

LITERARY SCHOLARSHIPS OF THE SECOND YEAR.

GREEK.—*Examiner, Professor D'Arcy Thompson,* M.A.

OBS.—In the subjoined extracts, all the words to which the figure 1 is affixed are to be parsed, and asterisks are placed in passages where peculiarity of construction calls for comment.

1. Translate the following passages :—

(*a.*) Ὣς εἰπὼν ἄλλους μὲν ἀπεσκέδασεν βασιλῆας,
δοιὼ δ' Ἀτρεΐδα μενέτην καὶ δῖος Ὀδυσσεύς,
Νέστωρ Ἰδομενεύς τε γέρων θ' ἱππηλάτα[1] Φοῖνιξ,
τέρπρυτες πυκινῶς ἀκαχήμενον· οὐδέ τι θυμῷ
τέρπετο, πρὶν[1] πολέμου στόμα δύμεναι αἱματόεντος.
μνησάμενος δ' ἀδινῶς ἀνενείκατο[1] φώνησέν τε.
Iliad, XIX., 309-314.

(*b.*) Ἐγγὺς ἀνὴρ ὃς ἐμόν γε μάλιστ' ἐσεμάσσατο θυμὸν,
ὅς μοι ἑταῖρον ἔπεφνε[1] τετιμένον· οὐδ' ἂν ἔτι δήν
ἀλλήλους πτώσσοιμεν ἀνὰ πτολέμοιο γεφύρας.
Ib., XX., 425-427.

(*c.*) Ὡς δ' ὅτ' ἀνὴρ ὀχετηγὸς ἀπὸ κρήνης μελανύδρου
ἄμ φυτὰ καὶ κήπους ὕδατι ῥόον ἡγεμονεύῃ,
χερσὶ μάκελλαν ἔχων, ἀμάρης ἐξ ἔχματα βάλλων·
τοῦ μέν τε προρέοντος ὑπὸ ψηφῖδες ἅπασαι
ὀχλεῦνται· τὸ δέ τ' ὦκα κατειβόμενον κελαρύζει
χώρῳ ἔνι προαλεῖ, φθάνει δέ τε καὶ τὸν ἄγοντα·
ὣς αἰεὶ Ἀχιλῆα κιχήσατο κῦμα ῥόοιο,
καὶ λαιψηρὸν ἐόντα· θεοὶ δέ τε φέρτεροι ἀνδρῶν.
Ib., XXI., 257-264.

2. Translate the following passages :—

(*a*) Ὦ παῖ, καλῶς σοι Τειρεσίας παρήνεσεν·
οἴκει μεθ' ἡμῶν, μὴ θύραζε τῶν νόμων.
νῦν γὰρ πέτει τε καὶ φρονῶν οὐδὲν φρονεῖς.
κεἰ μὴ γὰρ ἔστιν ὁ θεὸς οὗτος, ὡς σὺ φής,
παρὰ σοὶ λεγέσθω· καὶ καταψεύδου καλῶς
ὡς ἔστι Σεμέλης, ἵνα δοκῇ θεὸν τεκεῖν,
ἡμῖν τε τιμὴ παντὶ τῷ γένει προσῇ.
EURIPIDES—*Bacchæ,* 330-336.

(*b.*) Πειθοὺς δ' ὅπως μὴ* πένθος εἰσοίσει δόμοις
τοῖς σοῖσι, Κάδμε· μαντικῇ μὲν οὐ λέγω,
τοῖς πράγμασιν δέ· μῶρα γὰρ μῶρος λέγει.
Ib., 367-369.

(*c.*) ΠΕ. Ἔπειτα θύρσον τόνδε παράδος ἐκ χεροῖν.
ΔΙ. αὐτός μ' ἀφαιροῦ· τόνδε Διονύσου φορῶ.
ΠΕ. εἱρκταῖσί τ' ἔνδον σῶμα σὸν φυλάξομεν.
ΔΙ. λύσει μ' ὁ δαίμων αὐτός, ὅταν ἐγὼ θέλω.
ΠΕ. ὅταν γε καλέσῃς αὐτὸν ἐν Βάκχαις σταθείς.
ΔΙ. καὶ νῦν ἃ πάσχω πλησίον παρὼν ὁρᾷ.
ΠΕ. καὶ ποῦ"στιν; οὐ γὰρ φανερὸς ὄμμασίν γ' ἐμοῖς.

Appendix, No. 2.

Scholarship Examinations.

ΔΙ. *παρ' ἐμοί· σὺ δ' ἀσεβὴς αὐτὸς ὢν οὐκ εἰσορᾷς.*
ΠΕ. *λάζυσθε· καταφρονεῖ με καὶ Θήβας ὅδε.*
ΔΙ. *αὐδῶ με μὴ δεῖν σωφρονῶν οὐ σώφροσιν.*
ΠΕ. *ἐγὼ δὲ δεῖν γε κυριώτερος σέθεν.*
ΔΙ. *οὐκ οἶσθ' ὅ τι ζῇς, οὐδ' ὁρᾷς ἔθ' ὅστις εἶ.*
ΠΕ. *Πενθεὺς, Ἀγαύης παῖς, πατρὸς δ' Ἐχίονος.*
ΔΙ. *ἐνδυστυχῆσαι* τοὔνομ' ἐπιτήδειος εἶ.*

Ib., 495-508.

(*d*) *Ὡς δέ μοι δοκεῖ, ψοφεῖ γοῦν ἀρβύλη δόμων ἔσω,*
εἰς προνώπι' αὐτίχ' ἥξει. τί ποτ' ἄρ' ἐκ τούτων ἐρεῖ;
ῥᾳδίως γὰρ αὐτὸν οἶσω, κἂν πνέων ἔλθῃ μέγα.
πρὸς σοφοῦ γὰρ ἀνδρὸς ἀσκεῖν σώφρον' εὐεργησίαν.

Ib., 638-641.

3. Translate the following:—

Εἰ δέ τις ὑμῶν, ὦ ἄνδρες Ἀθηναῖοι, τὸν Φίλιππον εὐτυχοῦντα ὁρῶν ταύτῃ[1] φοβερὸν προσπολεμῆσαι νομίζει, σώφρονος μὲν ἀνθρώπου λογισμῷ χρῆται· μεγάλη γὰρ ῥοπή, μᾶλλον δὲ ὅλον ἡ τύχη παρὰ πάντ' ἐστὶ τὰ τῶν ἀνθρώπων πράγματα· οὐ μὴν ἀλλ' ἔγωγε, εἴ τις αἵρεσίν μοι δοίη, τὴν τῆς ἡμετέρας πόλεως τύχην ἂν ἑλοίμην, ἐθελόντων ἃ προσήκει ποιεῖν ὑμῶν αὐτῶν καὶ κατὰ μικρὸν, ἢ τὴν ἐκείνου· πολὺ γὰρ πλείους ἀφορμὰς εἰς τὸ τὴν παρὰ τῶν θεῶν εὔνοιαν ἔχειν ὁρῶ ὑμῖν ἐνούσας ἢ 'κείνῳ. ἀλλ', οἶμαι, καθήμεθα οὐδὲν ποιοῦντες· οὐκ ἔνι δ' αὐτὸν ἀργοῦντα οὐδὲ τοῖς φίλοις ἐπιτάττειν ὑπὲρ αὐτοῦ τι ποιεῖν, μή* τί γε δὴ τοῖς θεοῖς. οὐ δὴ θαυμαστόν ἐστιν, εἰ στρατευόμενος καὶ πονῶν ἐκεῖνος αὐτὸς καὶ παρὼν ἐφ' ἅπασι καὶ μηδένα καιρὸν μηδ' ὥραν παραλείπων ἡμῶν μελλόντων καὶ ψηφιζομένων καὶ πυνθανομένων περιγίγνεται. οὐδὲ θαυμάζω τοῦτ' ἐγώ· τοὐναντίον γὰρ ἂν ἦν θαυμαστὸν, εἰ μηδὲν ποιοῦντες ἡμεῖς ὧν τοῖς πολεμοῦσι προσήκει τοῦ πάντα ποιοῦντος ἃ δεῖ περιῆμεν.*

DEMOSTHENES—*Olynthiac Orations.*

4. (*a.*) Enumerate the divisions of Northern or Continental Greece.
(*b.*) Name two of the rivers of Asia Minor that discharge into the Euxine Sea.
(*c.*) Name as many as you can of the towns of Lydia.
(*d.*) Give the names and positions of
(1) the four largest of the islands that lie off the western coast of Asia Minor; and (2) of the three principal islands in the Ionian Sea.

5. (*a.*) Give a brief account of the Amphictyonic Council.
(*b.*) Describe succinctly the political government of Sparta.
(*c.*) What is meant by the following terms:—
(1.) Eupatridæ, Geomori, Demiurgi;
(2.) Geleontes, Hopletes, Ægicores, Argades?
(*d.*) State what was meant by the term *μητρόπολις*; and illustrate your explanation by three instances.
(*e.*) What causes led to the Peloponnesian war?
(*f.*) Give a very brief account of—(1) Brasidas; (2) Gylippus; (3) Callicratidas; (4) Theramenes.

---

1. Translate the following passages, annotate such words or expressions as seem to merit special notice, and transform constructions peculiarly Thucydidean into simple—say Xenophontic—Greek:—

(*a.*) *Ἄνδρες οἱ ξυναράμενοι τοῦδε τοῦ κινδύνου, μηδεὶς ὑμῶν ἐν τῇ τοιᾷδε ἀνάγκῃ ξυνετὸς βουλέσθω δοκεῖν εἶναι, ἑκλογιζόμενος ἅπαν τὸ περιεστὸς*

ἡμᾶς δεινόν, μᾶλλον δὲ ἀπερισκέπτος εὐελπις ὁμόσε χωρῆσαι τοῖς ἐναντίοις, καὶ ἐκ τούτων ἂν περιγενόμενος. ὅσα γὰρ ἐς ἀνάγκην ἀφῖκται ὥσπερ τάδε, λογισμὸν ἥκιστα ἐνδεχόμενα κινδύνου τοῦ ταχίστου προσδεῖται.

THUCYDIDES, IV., 10.

(*b.*) Σωφρόνων δὲ ἀνδρῶν οἵτινες τἀγαθὰ ἐς ἀμφίβολον ἀσφαλῶς ἔθεντο (καὶ ταῖς ξυμφοραῖς οἱ αὐτοὶ εὐξυνετώτερον ἂν προσφέροιντο), τόν τε πόλεμον νομίσωσι μὴ καθ' ὅσον ἄν τις αὐτοῦ μέρος βούληται μεταχειρίζειν, τούτῳ ξυνεῖναι, ἀλλ' ὡς ἂν αἱ τύχαι αὐτῶν ἡγήσωνται· καὶ ἐλάχιστ' ἂν οἱ τοιοῦτοι πταίοντες διὰ τὸ μὴ τῷ ὀρθουμένῳ αὐτοῦ πιστεύοντες ἐπαίρεσθαι ἐν τῷ εὐτυχεῖν ἂν μάλιστα καταλύοιντο. ὃ νῦν ὑμῖν, ὦ Ἀθηναῖοι, καλῶς ἔχει πρὸς ἡμᾶς πρᾶξαι, καὶ μήποτε ὕστερον, ἢν ἄρα μὴ πειθόμενοι σφαλῆτε, ἃ πολλὰ ἐνδέχεται, νομισθῆναι τύχῃ καὶ τὰ νῦν προχωρήσαντα κρατῆσαι, ἐξὸν ἀκινδύνων δόκησιν ἰσχύος καὶ ξυνέσεως ἐς τὸ ἔπειτα καταλιπεῖν.

Ib., 18.

(*c.*) Καὶ τοὺς μὲν Ἀθηναίους ταῦτα πλεονεκτεῖν τε καὶ προνοεῖσθαι πολλῇ ξυγγνώμῃ, καὶ οὐ τοῖς ἄρχειν βουλομένοις μέμφομαι, ἀλλὰ τοῖς ὑπακούειν ἑτοιμοτέροις οὖσι· πέφυκε γὰρ τὸ ἀνθρώπειον διὰ παντὸς ἄρχειν μὲν τοῦ εἴκοντος, φυλάσσεσθαι δὲ τὸ ἐπιόν. ὅσοι δὲ γιγνώσκοντες αὐτὰ μὴ ὀρθῶς προσκοποῦμεν, μηδὲ τοῦτό τις πρεσβύτατον ἥκει κρίνας, τὸ κοινῶς φυβερὸν ἅπαντας εὖ θέσθαι, ἁμαρτάνομεν. τάχιστα δ' ἂν ἀπαλλαγὴ αὐτοῦ γένοιτο, εἰ πρὸς ἀλλήλους ξυμβαίημεν· οὐ γὰρ ἀπὸ τῆς αὐτῶν ὁρμῶνται Ἀθηναῖοι, ἀλλ' ἐκ τῆς τῶν ἐπικαλεσαμένων. καὶ οὕτως οὐ πόλεμος πολέμῳ, εἰρήνῃ δὲ διαφοραὶ ἀπραγμόνως παύονται, οἵ τ' ἐπίκλητοι εὐπρεπῶς ἄδικοι ἐλθόντες εὐλόγως ἄπρακτοι ἀπίασι.

Ib., 61.

2. Render into Greek the following:—

The principal and proper work of history being to instruct, and to enable men by the knowledge of past actions to bear themselves prudently in the present, and providently towards the future, there is not extant any merely human writer that more fully and naturally performs that work than the author of whom we are treating. For he is accounted the most politic historiographer that ever writ; seeing that he fills his narrations with such choice of matter, and arranges them with such judgment, and expresses himself with such perspicuity and efficacy, that, as Plutarch says, "he makes his auditor a spectator." For he sets his reader in the assemblies of the people, in the senate-houses at their debatings, in the streets at their seditions, in the field at their battles.

SENIOR SCHOLARSHIPS.

LATIN.—*Examiner, Professor Maguire*, LL.D.

(A.)—Translate:—

PERSIUS, ii., 52–75.

Si tibi creterras argenti incusaque pingui
Auro dona feram, sudes et pectore laevo
Excutias guttas, laetari praetrepidum cor.
Hinc illud subiit, auro sacras quod ovato
Perducis facies; nam fratres inter aenos
Somnia pituita qui purgatissima mittunt,
Praecipui sunto sitque illis aurea barba.
Aurum vasa Numae Saturniaque impulit acra,
Vestalesque urnas et Tuscum fictile mutat.
O curvae in terris animae et caelestium inanes!
Quid iuvat, hos templis nostros immittere mores,

Appendix, No. 2.

Scholarship Examinations.

Et bona dis ex hac scelerata ducere pulpa?
Haec sibi corrupto casiam dissolvit olivo,
Haec Calabrum coxit vitiato murice vellus,
Haec baccam conchae rasisse et stringere venas
Ferventis massae crudo de pulvere iussit.
Peccat et haec, peccat: vitio tamen utitur; at vos
Dicite, pontifices, in sancto quid facit aurum?
Nempe hoc quod Veneri donatae a virgine pupae.
Quin damus id superis, de magna quod dare lance
Non possit magni Messallae lippa propago:
Compositum ius fasque animi, sanctosque recessus
Mentis, et incoctum generoso pectus honesto.
Haec cedo ut admoveam templis, et farre litabo.

(B.)—Translate:—

JUVENAL, iv., 107–128.

Montani quoque venter adest abdomine tardus,
Et matutino sudans Crispinus amomo,
Quantum vix redolent duo funera; saevior illo
Pompeius tenui iugulos aperire susurro,
Et, qui vulturibus servabat viscera Dacis,
Fuscus, marmorea meditatus praelia villa,
Et cum mortifero prudens Veiento Catullo,
Qui numquam visae flagrabat amore puellae,
Grande et conspicuum nostro quoque tempore monstrum,
Caecus adulator dirusque a ponte satelles,
Dignus Aricinos qui mendicaret ad axes
Blandaque devexae iactaret basia redae.
Nemo magis rhombum stupuit: nam plurima dixit
In laevum conversus; at illi dextra iacebat
Bellua. Sic pugnas Cilicis laudabat et ictus
Et pegma et pueros inde ad velaria raptos.
Non cedit Veiento, sed, ut fanaticus, oestro
Percussus, Bellona, tuo divinat et, Ingens
Omen habes, inquit, magni clarique triumphi:
Regem aliquem capies, aut de temone Britanno
Excidit Arviragus. Peregrina est bellua; cernis
Erectas in terga sudes?

(C.)—Translate:—

CATULLUS, lxiv., 53–75.

Namque fluentisono prospectans litore Diae
Thesea cedentem celeri cum classe tuetur
Indomitos in corde gerens Ariadna furores,
Necdum etiam sese quae visit visere credit,
Ut pote fallaci quae tum primum excita somno
Desertam in sola miseram se cernat arena.
Inmemor at iuvenis fugiens pellit vada remis,
Irrita ventosae linquens promissa procellae.
Quem procul ex alga maestis Minois ocellis,
Saxea ut effigies bacchantis, prospicit, eheu,
Prospicit et magnis curarum fluctuat undis,
Non flavo retinens subtilem vertice mitram,
Non contecta levi velatum pectus amictu,
Non tereti strophio lactentis vincta papillas,
Omnia quae toto delapsa e corpore passim
Ipsius ante pedes fluctus salis alludebant.

Sic neque tum mitrae neque tum fluitantis amictus
Illa vicem curans toto ex te pectore, Theseu,
Toto animo, tota pendebat perdita mente.
Ah misera, assiduis quam luctibus externavit
Spinosas Erycina serens in pectore curas
Illa tempestate, ferox quo ex tempore Theseus
Egressus curvis e litoribus Piraei
Attigit iniusti regis Gortynia tecta.

Examiner, Professor Maguire, LL.D.

(A.)—Translate :—

PLAUTUS—*Amphitruo,* 271–283.

So. Certe edepol, si quicquamst aliut quod credam aut certo sciam,
Credo ego hac noctu Nocturnum obdormiuisse ebrium.
Nam neque se septentriones quoquam in caelo conmouent,
Neque se luna quoquam mutat atque uti exortast semel,
Nec iugulae neque uesperugo neque uergiliae occidunt.
Ita statim stant signa neque nox quoquam concedit die.
Me. Perge, nox, ut occepisti : gere patri morem meo :
Optumo optume optumam operam das, datam pulcre locas.
So. Neque ego hac nocte longiorem me uidisse censeo
Nisi itidem unam, uerberatus quam pependi perpetem :
Eam quoque edepol etiam multo haec uicit longitudine.
Credo edepol equidem dormire Solem, atque adpotum probe :
Mira sunt nisi inuitauit sese in cena plusculum.

1. Give the English of *versipellem, sirempse, occillat, torulus, petaso, hirnea.*
2. A pun in this play illustrates the Roman pronunciation of *ci ?*
3. Translate "de Alcumena dudum quod dixi minus—(479).

(B.)—Translate :—

CICERO—*De Republica,* ii., 22.

Deinde equitum magno numero ex omni populi summa separato relicuum populum distribuit in quinque classis senioresque a iunioribus divisit, eosque ita disparavit, ut suffragia non in multitudinis, sed in locupletium potestate essent, curavitque, quod semper in re publica tenendum est, ne plurimum valeant plurimi. Quae discriptio si esset ignota vobis, explicaretur a me. Nunc rationem videtis esse talem, ut equitum centuriae cum sex suffragiis et prima classis addita centuria, quae ad summum usum urbis fabris tignariis est data, LXXXVIIII. centurias habeat : quibus ex centum quattuor centuriis—tot enim reliquae sunt—octo solae si accesserunt, confecta est vis populi universa, reliquaque multo maior multitudo sex et nonaginta centuriarum neque excluderetur suffragiis, ne superbum esset, nec valeret nimis, ne esset periculosum. In quo etiam verbis ac nominibus ipsis fuit diligens, qui quum locupletis assiduos appellasset ab asse dando, eos, qui aut non plus mille quingentum aeris aut omnino nihil in suum censum praetur caput attulissent, proletarios nominavit, ut ex iis quasi proles, id est quasi progenies civitatis, exspectari videretur.

De Legibus, ii. 24.

Qua in lege quum esset, NEVE AURUM ADDITO, quam humane excipit altera lex : QUOI AURO DENTES VINCTI ESUNT, AST IM CUM ILLO SEPELIRE URERREVE SE FRAUDE ESTO. Et simul illud videtote, aliud habitum

Appendix, No. 2.

Scholarship Examinations.

esse sepelire et urere. Duae sunt praeterea leges de sepulcris, quarum altera privatorum aedificiis, altera ipsis sepulcris cavet. Nam quod ROGUM BUSTUMVE NOVUM vetat PROPIUS SEXAGINTA PEDES ADIICI AEDES ALIENAS INVITO DOMINO, incendium veretur acerbum. Quod autem FORUM, id est, vestibulum sepulcri BUSTUMVE USUCAPI vetat, tuetur ius sepulcrorum. Haec habemus in XII, sane secundum naturam, quae norma legis est. Reliqua sunt in more, funus ut indicatur, si quid ludorum, dominusque funeris utatur accenso atque lictoribus, honoratorum virorum laudes in contione memorentur easque etiam cantus ad tibicinem prosequatur, cui nomen neniae, quo vocabulo etiam Graecis cantus lugubres nominantur.

Translate into Latin prose:—

There are few circumstances among those which make up the present condition of human knowledge, more unlike what might have been expected, or more significant of the backward state in which speculation on the most important subjects still lingers than the little progress which has been made in the decision of the controversy respecting the criterion of right and wrong. From the dawn of philosophy the question concerning the *summum bonum*, or, what is the same thing, concerning the foundation of morality, has been accounted the main problem in speculative thought, has occupied the most gifted intellects, and divided them into sects and schools, carrying on a vigorous warfare against one another. And after more than two thousand years the same discussions continue, philosophers are still ranged under the same contending banners, and neither thinkers nor mankind at large seem nearer to being unanimous on the subject than when the youth Socrates listened to the old Protagoras, and asserted the theory of utilitarianism against the popular morality of the so-called Sophist.

J. S. MILL.

LITERARY SCHOLARSHIPS OF THE SECOND YEAR.

LATIN.—*Professor Maguire*, LL.D.

Translate:—

JUVENAL, iii., 157–179.

Hic plaudat nitidi praeconis filius inter
Pinnirapi cultos iuvenes iuvenesque lanistae.
Sic libitum vano, qui nos distinxit, Othoni.
Quis gener hic placuit censu minor atque puellae
Sarcinulis impar? quis pauper scribitur heres?
Quando in consilio est Aedilibus? agmine facto
Debuerant olim tenues migrasse Quirites.
Haud facile emergunt, quorum virtutibus obstat
Res angusta domi; sed Romae durior illis
Conatus: magno hospitium miserabile, magno
Servorum ventres, et frugi cenula magno.
Fictilibus cenare pudet, quod turpe negavit
Translatus subito ad Marsos mensamque Sabellam
Contentusque illic veneto duroque cucullo.
Pars magna Italiae est, si verum admittimus, in qua
Nemo togam sumit, nisi mortuus. Ipsa dierum
Festorum herboso colitur si quando theatro

Maiestas, tandemque redit ad pulpita notum
Exodium, quum personae pallentis hiatum
In gremio matris formidat rusticus infans:
Aequales habitus illic similesque videbis
Orchestram et populum; clari velamen honoris,
Sufficiunt tunicae summis Aedilibus albae.

Translate:—

TERENCE—*Heautontimorumenos*, Prologue, 28-52.

Facite aequi sitis: date crescendi copiam,
Nouarum qui spectandi faciunt copiam,
Sine uitiis: ne ille pro se dictum existumet,
Qui nuper fecit seruo currenti in uia
Decesse populum: quor insano seruiat?
De illius peccatis plura dicet, quom dabit
Alias nouas, nisi finem maledictis facit.
Adeste aequo animo: date potestatem mihi
Statariam agere ut liceat per silentium;
Ne semper seruos currens, iratus senex,
Edax parasitus, sycophanta autem inpudens,
Auarus leno, adsidue agendi sint mihi
Clamore summo, cum labore maxumo.
Mea causa causam hanc iustam esse animum inducite,
Vt aliqua pars laboris minuatur mihi.
Nam nunc nouas qui scribunt, nil parcunt seni:
Siquae laboriosast, ad me curritur:
Si lenis est, ad alium defertur gregem.
In hac est pura oratio. Experimini,
In utramque partem ingenium quid possit meum.
Si numquam auare pretium statui arti meae
Et eum esse quaestum in animum induxi maxumum,
Quam maxume seruire uostris commodis:
Exemplum statuite in me, ut adulescentuli
Vobis placere studeant potius quam sibi.

Scan the five first lines.

Translate:—

HORACE—*Odes*, iii., 30.

Exegi monumentum aere perennius
Regalique situ pyramidum altius,
Quod non imber edax, non Aquilo impotens
Possit diruere, aut innumerabilis
Annorum series et fuga temporum.
Non omnis moriar multaque pars mei
Vitabit Libitinam: usque ego postera
Crescam laude recens, dum Capitolium
Scandet cum tacita virgine pontifex.
Dicar, qua violens obstrepit Aufidus
Et qua pauper aquae Daunus agrestium
Regnavit populorum, ex humili potens
Princeps Aeolium carmen ad Italos
Deduxisse modos. Sume superbiam
Quaesitam meritis, et mihi Delphica
Lauro cinge volens, Melpomene, comam.

Appendix, No. 2.

Scholarship Examinations.

LATIN.—*Examiner, Professor Maguire*, LL.D.

(A.)—Translate :—

TACITUS—*Germaniæ*, c. 2.

Ipsos Germanos indigenas crediderim, minimeque aliarum gentium adventibus et hospitiis mixtos, quia nec terra olim sed classibus advehebantur qui mutare sedes quaerebant, et inmensus ultra utque sic dixerim adversus Oceanus raris ab orbe nostro navibus aditur. Quis porro, praeter periculum horridi et ignoti maris, Asia aut Africa aut Italia relicta Germaniam peteret, informem terris, asperam caelo, tristem cultu aspectuque, nisi si patria sit? Celebrant carminibus antiquis, quod unum apud illos memoriae et annalium genus est, Tuisconem deum terra editum, et filium Mannum, originem gentis conditoresque. Manno tris filios adsignant, e quorum nominibus proximi Oceano Ingaevones, medii Herminones, ceteri Iscaevones vocentur. Quidam, ut in licentia vetustatis, pluris deo ortos plurisque gentis appellationes, Marsos Gambrivios Suebos Vandalios adfirmant, eaque vera et antiqua nomina. Ceterum Germaniae vocabulum recens et nuper additum, quoniam qui primi Rhenum transgressi Gallos expulerint, ut nunc Tungri, tunc Germani vocati sint. Ita nationis nomen, non gentis, evaluisse paulatim, ut omnes primum a victore ob metum, mox etiam a se ipsis invento nomine Germani vocarentur.

(B.)—Translate :—

CICERO—*Ad Quintum Fratrem*, ii., 3.

A. d. IIII. Id. Febr. Sestius ab indice Cn. Nerio Pupinia de ambitu est postulatus et eodem die a quodam M. Tullio de vi. Is erat aeger. Domum, ut debuimus, ad eum statim venimus eique nos totos tradidimus, idque fecimus praeter hominum opinionem, qui nos ei iure succensere putabant, ut humanissimi gratissimique et ipsi et omnibus videremur, itaque faciemus. Sed idem Nerius index edidit ad adligatos Cn. Lentulum Vatiam et C. Cornelium : † ista ei. Eodem die senatus consultum factum est, UT SODALITATES DECURIATIQUE DISCEDERENT, LEXQUE DE IIS FERRETUR, UT, QUI NON DISCESSISSENT, EA POENA, QUAE EST DE VI, TENERENTUR. A. d. III. Id. Febr. dixi pro Bestia de ambitu apud praetorem Cn. Domitium in foro medio maximo conventu, incidique in eum locum in dicendo, quum Sestius multis in templo Castoris vulneribus acceptis subsidio Bestiae servatus esset. Hic προφκονομησάμην quiddam εὐκαίρως de his, quae in Sestium apparabantur crimina, et eum ornavi veris laudibus, magno adsensu omnium. Res homini fuit vehementer grata. Quae tibi eo scribo, quod me de retinenda Sestii gratia litteris saepe monuisti.

Write out the perfects and supines of the following :—*Eximere, sumere, cupere, reperire, comperire, diligere, deligere, delegare.*

Translate into Latin prose :—

The state of property in Peru was no less singular than that of religion, and contributed, likewise, towards giving a mild turn of character to the people. All the lands capable of cultivation were divided into three shares. One was consecrated to the Sun, and whatever it produced was applied towards the erection of temples, and furnishing what was requisite towards celebrating the public rites of religion. The other belonged to the Inca, and was set apart as the provision made by the community for the support of government. The third and largest share was reserved

for the maintenance of the people, among whom it was parcelled out. No person, however, had a right of exclusive property in the portion allotted to him. He possessed it only for a year, at the expiration of which a new division was made, in proportion to the rank, the number, and the exigencies of each family.

Appendix, No. 2.

Scholarship Examinations.

ENGLISH LITERATURE.—*Examiner, Professor Moffett*, LL.D.

1. Name the seven sons of Edward III.
   How are they referred to in *Richard II.?*
2. Quote as much of John of Gaunt's last speech as you remember.
3. Explain the following passages, especially the italicized words :—
   (*a.*) "Since we cannot *atone* you, you shall see
   Justice *design* the victor's *chivalry.*"
   (*b.*) "*Expedient manage* must be made, my *liege.*"
   (*c.*) ——"the land is now *leased* out
   Like to a tenement, or *pelting* farm."
   (*d.*) "*Imp* out our drooping country's broken wing,
   Redeem from *broking pawn* the blemished crown."
   (*e.*) "He should have found his uncle Gaunt a father,
   To rouse his wrongs and chase them *to the bay.*
   I am denied *to sue my livery here,*
   And yet my *letters-patents* give me leave" :——
   (*f.*) ——"in the *base court* he doth attend."
   (*g.*) "The *chopping* French we do not understand."
   (*h.*) "A *caitiff recreant* to my cousin Hereford."
   (*i.*) ——"*Conveyers* are you all."
   (*j.*) "Ah, thou, the *model* where old Troy did stand,
   Thou *map* of honour, thou King Richard's tomb,
   And not King Richard ; thou most beauteous *inn.*"——
4. Sketch the career and character of Bacon.
   State precisely the grounds on which his conduct (*a.*) in relation to Essex, (*b.*) in his judicial office, has been severely censured.
   How has it been sought to justify or to extenuate his proceedings in each of these cases?
5. What high testimony to Bacon's oratorical powers do we possess?
6. Enumerate, in chronological order, the principal constituents of the English Language, giving a few examples of each.
   Connect your answer with important facts in History, adding dates.
7. From what languages do we derive the following words :—
   Commodore, distaff, horde, abbey, balcony, muslin, bamboo, gong, kangaroo, grotto, bayonet, algebra?
8. Give the Plurals of the following Nouns :—
   Genus, genius, formula, dogma, virtuoso, Sir, Madam, canto, criterion, miasma, calico, apparatus.
9. Account for the *es* in Wednesday ; the *m* in *hi-m, the-m, who-m* ; the *r* in *he-r, the-re, whe-re* ; and the *y* in *wh-y.*
10. Analyse the following passage :—
    "Night, sable goddess, from her ebon throne,
    In rayless majesty, now stretches forth
    Her leaden sceptre o'er a slumbering world."
11. Define Purity of Language.
    Errors against Purity are classed under three heads :—Explain and illustrate each.

Appendix, No. 2.

Scholarship Examinations.

12. Examine the following sentences :—

(*a.*) "The comeliest man of men since born
His sons. The fairest of her daughters Eve."

(*b.*) "Like kings we lose the conquests gained before,
In vain ambition still to make them more."

(*c.*) "Just to thy word, in every thought sincere;
Who knew no wish but what the world might hear."

(*d.*) "The Englishman's house is his castle: every wind may enter; but the king cannot, the king dare not enter."

(*e.*) "If I should declare them, and speak of them, they should be more than I am able to express."

(*f.*) "There are principles in man which ever have, and ever will incline him towards this offence."

(*g.*) "In the Latin language, there are no two words we would more readily take to be synonymous than *amare* and *diligere*."

(*h.*) "Thomson's *Seasons* are a noble work."

(*i.*) "Johnson's *Lives of the Poets* are reprinting."

(*j.*) "Sand and salt and a mass of iron is easier to bear than a man without understanding."

Arts and Medicine.

Scholarship Examination—First Year.

Greek.—*Examiner, Professor D'Arcy Thompson,* M.A.

Obs.—Every word to which the figure [1] is appended in the subjoined extracts is to be fully and accurately parsed.

1. Translate the following passages :—

(*a.*) Πότνι'[1] Ἀθηναίη, ἐρυσίπτολι, δῖα θεάων,
ἦ ξον[1] δὴ ἔγχος Διομήδεος, ἠδὲ καὶ αὐτὸν
πρηνέα δὸς πεσέειν Σκαιῶν προπάροιθε πυλάων,
ὄφρα τοι αὐτικα νῦν δυοκαίδεκα βοῦς ἐνὶ νηῷ,
ἥνις,[1] ἠκέστας,[1] ἱερεύσομεν, αἴ κ' ἐλεήσῃς
ἄστυ τε καὶ Τρώων ἀλόχους καὶ νήπια τέκνα.
Iliad, VI., 305–310.

(*b.*) Δαιμόνι', οὐ μὲν καλὰ[1] χόλον τόνδ' ἔνθεο θυμῷ.
λαοὶ μὲν φθινύθουσι περὶ πτόλιν αἰπύ τε τεῖχος
μαρνάμενοι· σέο δ' εἵνεκ' ἀϋτή τε πτόλεμός τε
ἄστυ τόδ' ἀμφιδέδηε· σὺ δ' ἂν μαχέσαιο καὶ ἄλλῳ,
ὅντινά που μεθιέντα ἴδοις στυγεροῦ πολέμοιο.
ἀλλ' ἄνα,[1] μὴ τάχα ἄστυ πυρὸς δηΐοιο θέρηται.
Ib., 326–331.

(*c.*) Τὸν δ' εὗρ' ἰδρώοντα ἑλισσόμενον περὶ φύσας,
σπεύδοντα· τρίποδας γὰρ ἐείκοσι πάντας ἔτευχεν
ἑστάμεναι περὶ τοῖχον ἐϋσταθέος μεγάροιο,
χρύσεα δέ σφ' ὑπὸ κύκλα ἑκάστῳ πυθμένι θῆκεν,
ὄφρα οἱ αὐτόματοι θεῖον δυσαίατ' ἀγῶνα
ἠδ' αὖτις πρὸς δῶμα νεοίατο, θαῦμα ἰδέσθαι.
Ib., XVIII., 372–377.

(*d.*) Ἐν δ' ἐτίθει σταφυλῇσι μέγα βρίθουσαν ἀλωὴν,
καλὴν, χρυσείην· μέλανες δ' ἀνὰ βότρυες ἦσαν,
ἐστήκει δὲ κάμαξι διαμπερὲς ἀργυρέῃσιν.
ἀμφὶ δὲ, κυανέην κάπετον, περὶ δ' ἕρκος ἔλασσεν[1]
κασσιτέρου· μία δ' οἴη ἀταρπιτὸς ἦεν ἐπ' αὐτὴν,
τῇ νίσσοντο φορῆες, ὅτε τρυγόφεν ἀλωήν.

Ib., 561–566.

2. Translate the following passages :—

(*a.*) ΙΟ. ἐπίσχες· οὗτοι τὸ ταχὺ τὴν δίκην ἔχει·
βραδεῖς δὲ μῦθοι πλεῖστον ἀνύουσιν σοφόν.
σχάσον[1] δὲ δεινὸν ὄμμα καὶ θυμοῦ πνοάς·
οὐ γὰρ τὸ λαιμότμητον εἰσορᾷς κάρα
Γοργόνος, ἀδελφὸν δ' εἰσορᾷς ἥκοντα σόν.

EURIPIDES—*Phœnissæ*, 452-456.

(*b.*) οὗτοι τὰ χρήματ' ἴδια κέκτηνται βροτοί,
τὰ τῶν θεῶν δ' ἔχοντες ἐπιμελούμεθα·
ὅταν δὲ χρῄζωσ', αὖτ' ἀφαιροῦνται πάλιν.

Ib., 555–558.

(*c.*) Ἃ συγκαλύψαι παῖδες Οἰδίπου χρόνῳ
χρῄζοντες, ὡς δὴ θεοὺς ὑπεκδραμούμενοι,[1]
ἥμαρτον ἀμαθῶς· οὔτε γὰρ γέρα[1] πατρὶ
οὔτ' ἔξοδον διδόντες ἄνδρα δυστυχῆ
ἐξηγρίωσαν· ἐκ δ' ἔπνευσ' αὐτοῖς ἀρὰς
δεινὰς νοσῶν τε καὶ πρὸς[1] ἠτιμασμένος.

Ib., 872–877.

3. Give a full and accurate account of the geographical terms—(1) Cythera ; (2) Pelorum ; (3) Metapontum ; (4) Imbros ; (5) Epidamnus ; (6) Calydon ; (7) Sicyon ; (8) Nauplia ; (9) Gythium ; (10) Megalopolis ; (11) Sphacteria ; (12) Tænarium.

4. Give a brief account of—(1) Pisistratus ; (2) Cleisthenes ; (3) Polycrates ; (4) Herodotus ; (5) Cimon ; (6) Anaxagoras ; (7) Agesilaus ; and (8) Pelopidas.

---

1. Translate the following :—

(*a.*) Ἦδη δὲ ἦν πολλὴ πάντων ἀφθονία· καὶ γὰρ ἀγοραὶ πάντοθεν ἀφικνοῦντο ἐκ τῶν Ἑλληνίδων πόλεων καὶ οἱ παραπλέοντες ἅσμενοι κατῆγον, ἀκούοντες ὡς οἰκίζοιτο πόλις καὶ λιμὴν εἴη. ἔπεμπον δὲ καὶ οἱ πολέμιοι ἤδη οἱ πλησίον ᾤκουν πρὸς Ξενοφῶντα, ἀκούοντες ὅτι οὗτος πολίζει τὸ χωρίον, ἐρωτῶντες ὅ τι δέοι ποιοῦντας φίλους εἶναι.

XENOPHON—*Anabasis.*

NOTE.—Explain the force of the moods in *οἰκίζοιτο* and *πολίζει* ; and suggest another reading for *ὅ τι* in the last line.

(*b.*) Ὦ ἄνδρες στρατιῶται, ἐμοὶ δὲ οὐ φαῦλον δοκεῖ εἶναι τὸ πρᾶγμα, εἰ ἡμῖν οὕτως ἔχων τὴν γνώμην Κλέανδρος ἅπεισιν ὥσπερ λέγει. εἰσὶ μὲν γὰρ ἐγγὺς αἱ Ἑλληνίδες πόλεις· τῆς δὲ Ἑλλάδος Λακεδαιμόνιοι προεστήκασιν· ἱκανοὶ δέ εἰσι καὶ εἷς ἕκαστος Λακεδαιμονίων ἐν ταῖς πόλεσιν ὅ τι βούλονται διαπράττεσθαι. εἰ οὖν οὗτος πρῶτον μὲν ἡμᾶς Βυζαντίου ἀποκλείσει, ἔπειτα δὲ τοῖς ἄλλοις ἁρμοστὰς παραγγελεῖ εἰς τὰς πόλεις μὴ δέχεσθαι, ὡς ἀπιστοῦντας Λακεδαιμονίοις καὶ ἀνόμους ὄντας, ἔτι δὲ πρὸς Ἀναξίβιον τὸν ναύαρχον οὗτος ὁ λόγος περὶ ἡμῶν ἥξει, χαλεπὸν ἔσται καὶ μένειν καὶ ἀποπλεῖν· καὶ γὰρ ἐν τῇ γῇ ἄρχουσι Λακεδαιμόνιοι καὶ ἐν τῇ θαλάττῃ

Appendix, No. 2.

Scholarship Examinations.

τον νῦν χρόνον. οὔκουν δεῖ οὔτε ἑνὸς ἀνδρὸς ἕνεκα οὔτε δυοῖν ἡμᾶς τοὺς ἄλλους τῆς Ἑλλάδος ἀπέχεσθαι, ἀλλὰ πειστέον ὅ τι ἂν κελεύωσι· καὶ γὰρ αἱ πόλεις ἡμῶν, ὅθεν ἐσμέν, πείθονται αὐτοῖς.

XENOPHON—*Anabasis.*

NOTE.—(*a*) Write out in full the tenses of ἄπεισιν and παραγγελεῖ.

(*b*) Give the first person singular of the first aorist active of προίστημι—παραγγέλλω—ἀποπλέω—μένω.

(*c*) Translate the two expressions—πειστέον ἐστὶν αὐτοῖς and πειστέον ἐστὶν αὐτούς.

(*d*) Explain the construction of ὅ τι ἂν κελεύωσιν in the above passage, in the last line but one.

2. Render into Greek prose the following:—

Integrity hath many advantages over deceit. It is plainer and easier; it has less of danger in it; it is the shortest way to our end, carrying us thither in a straight line; and it will hold out and last longest. The arts of deceit grow continually weaker and less serviceable to those that use them; whereas integrity gains strength by use; and the more a man practiseth it, the greater service it doth him, by confirming his reputation, and encouraging those with whom he hath to do to repose trust in him, which is an unspeakable advantage in the affairs of life.

LATIN.—*Examiner, Professor Maguire,* LL.D.

Translate:—

HORACE—*Odes,* i., 3:

Sic te diva potens Cypri,
Sic fratres Helenae, lucida sidera,
Ventorumque regat pater
Obstrictis aliis praeter Iäpyga,
Navis, quae tibi creditum
Debes Virgilium finibus Atticis:
Reddas incolumem, precor,
Et serves animae dimidium meae.
Illi robur et aes triplex
Circa pectus erat, qui fragilem truci
Commisit pelago ratem
Primus, nec timuit praecipitem Africum
Decertantem Aquilonibus,
Nec tristes Hyadas, nec rabiem Noti,
Quo non arbiter Hadriae
Maior, tollere seu ponere volt freta.
Quem mortis timuit gradum,
Qui siccis oculis monstra natantia,
Qui vidit mare turgidum et
Infames scopulos, Acroceraunia?
Nequicquam deus abscidit
Prudens Oceano dissociabili
Terras, si tamen impiae
Non tangenda rates transiliunt vada.
Audax omnia perpeti
Gens humana ruit per vetitum nefas.
Audax Iäpeti genus
Ignem fraude mala gentibus intulit.

Post ignem aetheria domo
..Subductum macies et nova febrium
Terris incubuit cohors,
Semotique prius tarda necessitas
Leti corripuit gradum.
Expertus vacuum Daedalus aëra
Pennis non homini datis;
Perrupit Acheronta Herculeus labor.
Nil mortalibus ardui est;
Caelum ipsum petimus stultitia, neque
Per nostrum patimur scelus
Iracunda Iovem ponere fulmina.

SALLUST—*Jugurtha:*

Per idem tempus advorsum Gallos ab ducibus nostris Q. Caepione et M. Manlio male pugnatum, quo metu Italia omnis contremuerat. Illique et inde usque ad nostram memoriam Romani sic habuere, alia omnia virtuti suae prona esse, cum Gallis pro salute, non pro gloria certare. Sed postquam bellum in Numidia confectum et Iugurtham Roman vinctum adduci nunciatum est, Marius consul absens factus et ei decreta provincia Gallia; isque Kalendis Ianuariis magna gloria Consul triumphavit. Ea tempestate spes atque opes civitatis in illo sitae.

Translate into Latin prose:—

The defeat was, in truth, overwhelming. Of fifty thousand men who had that morning marched under the black eagles, not three thousand remained together. The King bethought him again of his corrosive sublimate, and wrote to bid adieu to his friends, and to give directions as to the measures to be taken in the event of his death:—"I have no resource left"—such is the language of one of his letters—"all is lost. I will not survive the ruin of my country. Farewell for ever."

Translate:—

VIRGIL—*Æneid*, v., 424–449:

Tum satus Anchisa cestus pater extulit aequos,
Et paribus palmas amborum innexuit armis.
Constitit in digitos extemplo arrectus uterque,
Brachiaque ad superas interritus extulit auras.
Abduxere retro longe capita ardua ab ictu,
Immiscentque manus manibus, pugnamque lacessunt,
Ille pedum melior motu fretusque iuventa,
Hic membris et mole valens; sed tarda trementi
Genua labant, vastos quatit aeger anhelitus artus.
Multa viri nequidquam inter se vulnera iactant,
Multa cavo lateri ingeminant, et pectore vastos
Dant sonitus, erratque aures et tempora circum
Crebra manus, duro crepitant sub vulnere malae.
Stat gravis Entellus, nisuque immotus eodem
Corpore tela modo atque oculis vigilantibus exit;
Ille, velut celsam oppugnat qui molibus urbem
Aut montana sedet circum castella sub armis,
Nunc hos nunc illos aditus omnemque pererrat
Arte locum, et variis assultibus irritus urguet.
Ostendit dextram insurgens Entellus et alte

Appendix, No. 2.

Scholarship Examinations.

Extulit; ille ictum venientem a vertice velox
Praevidit, celerique elapsus corpore cessit:
Entellus vires in ventum effudit, et ultro
Ipse gravis graviterque ad terram pondere vasto
Concidit, ut quondam cava concidit aut Erymantho
Aut Ida in magna radicibus eruta pinus.

LIVY, i., 39:

Eo tempore in regia prodigium visum, eventuque mirabile fuit: puero dormienti, cui Servio Tullio fuit nomen, caput ársisse ferunt multorum in conspectu. Plurimo igitur clamore inde ad tantae rei miraculum orto excitos reges; et cum quidam familiarium aquam ad restinguendum ferret, ab regina retentum; sedatoque iam tumultu moveri vetuisse puerum, donec sua sponte experrectus esset. Mox cum somno et flammam abisse. Tum abducto in secretum viro Tanaquil "viden' tu puerum hunc" inquit, "quem tam humili cultu educamus? scire licet hunc lumen quondam rebus nostris dubiis futurum praesidiumque regiae adflictae: proinde materiam ingentis publice privatimque decoris omni indulgentia nostra nutriamus." Inde puerum liberum loco coeptum haberi erudirique artibus, quibus ingenia ad magnae fortunae cultum excitantur. Evenit facile, quod diis cordi esset. Iuvenis evasit vere indolis regiae, nec, cum quaereretur gener Tarquinio, quisquam Romanae iuventutis ulla arte conferri potuit, filiamque ei suam rex despondit. Hic quacumque de causa tantus illi honos habitus credere prohibet, serva natum eum parvumque ipsum servisse. Eorum magis sententiae sum, qui Corniculo capto Servii Tullii, qui princeps in illa urbe fuerat, gravidam viro occiso uxorem, cum inter reliquas captivas cognita esset, ob unicam nobilitatem ab regina Romana prohibitam ferunt servitio partum Romae edidisse Prisci Tarquinii domo. Inde tanto beneficio et inter mulieres familiaritatem auctam, et puerum, ut in domo a parvo eductum, in caritate atque honore fuisse. Fortunam matris, quod capta patria in hostium manus venerit, ut serva natus crederetur fecisse.

*** Candidates were also examined *viva voce* in Cicero—Pro Lege Manilia, and in Latin Grammar.

Professor Moffett, LL.D.

1. Sketch the career and character of Pericles, or of Hannibal.
2. Epaminondas is called by Cicero "Princeps Graeciae":—Can you justify the appellation?
3. Philopoemen has been called "The last of the Greeks":—Give some account of this personage.
4. Sketch rapidly but distinctly *any one* of the following battles:—Marathon, Salamis, Thermopylae, Granicus.
5. What events in Roman History are connected with the rivers Cremera, Allia, Metaurus, and Rubicon?
6. State the causes of the Second Punic War, with the respective strength and weakness of the two powers; and enumerate the battles (not forgetting the dates).
7. Name the towns through which the Via Appia passed.
8. Describe the situation of Carthage, Corinth, and Rhegium.
9. Where are the Rivers Arno, Douro, Tigris, Potomac:
   The Lakes Erie, Como, Erne, Ladoga, Derwentwater:
   The Straits of Bonifacio, Bass, Babelmandeb, Yenikale:
   The Islands Heligoland, Mauritius, Guadaloupe, Celebes, New Guinea, Cuba, Juan Fernandez, and Kerguelen?
10. Write a brief geographical description of Prussia.

SCIENCE SCHOLARSHIPS—SECOND YEAR.

MATHEMATICS.—*Examiner, Professor Allman,* LL.D.

1. Prove that the six centres of similitude of three circles taken in pairs lie three by three on four straight lines.

2. If $\cos\theta = \dfrac{\cos\alpha + \cos\beta}{1 + \cos\alpha\cos\beta}$, prove that $\tan\dfrac{\theta}{2} = \tan\dfrac{\alpha}{2}\tan\dfrac{\beta}{2}$.

3. If the angles of a plane triangle be in Arithmetical Progression, and the greatest side be to the least as 5 is to 4, find all the angles.

$\log 3 = \cdot 4771213$, L tan 10° 53′ 30″ = 9·2842475,
L tan 10° 53′ 40″ = 9·2843610.

4. Find the superficial area of a right cone in terms of its side, and the circumference of its base.

5. Find the cosine of an angle of a spherical triangle in terms of its sides.

6. In a spherical triangle prove the formulæ :

$$\tan\tfrac{1}{2}(A+B) = \cot\tfrac{1}{2}C\,\frac{\cos\frac{1}{2}(a-b)}{\cos\frac{1}{2}(a+b)}\,;\quad \tan\tfrac{1}{2}(A-B) = \cot\tfrac{1}{2}C\,\frac{\sin\frac{1}{2}(a-b)}{\sin\frac{1}{2}(a+b)}.$$

7. Find the equation of a straight line. What is meant by the *equation of a curve?*

8. Find the equation of a straight line which passes through a given point, and makes a given angle with a given straight line.

9. Find the equation of a circle referred to rectangular co-ordinates.

10. Prove that in any equation with real coefficients imaginary roots enter in pairs.

11. Give Descartes' solution of a biquadratic equation.

12. Find the value of the determinant—

$$\begin{vmatrix} 1, & \gamma, & -\beta \\ -\gamma, & 1, & \alpha \\ \beta, & -\alpha, & 1 \end{vmatrix}$$

---

1. Find the sum of the series—

$$\cos x + \frac{\cos 3x}{3} + \frac{\cos 5x}{5} + \ldots\ldots$$

2. A semicircle is divided into three equal parts, and is then turned round its diameter; show that the zone generated by the revolution of the middle arc is equal to the sum of the zones generated by the revolution of the two extreme arcs.

3. Prove Lhuilier's formula for the spherical excess—

$$\tan\tfrac{1}{4}E = \sqrt{\{\tan\tfrac{1}{2}s\,\tan\tfrac{1}{2}(s-a)\,\tan\tfrac{1}{2}(s-b)\,\tan\tfrac{1}{2}(s-c)\}}.$$

4. In the equation $x^4 - px^3 + qx^2 - rx + s = 0$; prove that the sum of two of the roots will be equal to the sum of the other two, if $p^3 - 4pq + 8r = 0$; and that the product of two will be equal to the product of the other two, if $p^2 s = r^2$.

5. If the reciprocal of the sum of three quantities be equal to the sum of their reciprocals, show that two of the quantities are equal with opposite signs.

6. Find the condition which must be satisfied in order that the two lines $l\alpha + m\beta + n\gamma = 0$, $l'\alpha + m'\beta + n'\gamma = 0$, may be perpendicular to one another.

7. Find the equation of a circle referred to two tangents as axes of co-ordinates.

8. Find the locus of points such that the feet of the perpendiculars let fall from each of them on the sides of a triangle shall be in a straight line.

Appendix, No. 2.

Scholarship Examinations.

ARTS, MEDICINE, AND ENGINEERING.

SCIENCE SCHOLARSHIPS—FIRST YEAR.

ARITHMETIC.—*Examiner, Professor Allman,* LL.D.

1. Explain what is meant by a *scale of notation:* how would the number *eight* be written in the *quinary,* and the number *forty-nine* in the *septenary* scale?

2. Distinguish between prime and composite numbers. Show how to resolve a composite number into its prime factors, and by so doing for the numbers 1071, 1092, 2310, find their greatest common measure.

3. Define a vulgar fraction, and show that the value of a fraction remains unaltered if the numerator and denominator are multiplied by the same number. How is the value of a fraction altered by the addition of the same number to the numerator and denominator?

4. Show that $\sqrt{2}$ lies between $\frac{17}{12}$ and $\frac{41}{29}$.

Professor Curtis, LL.D.

5. Calculate the accurate value of $10{\cdot}9'63' \div 7{\cdot}53'7'$.

6. Find the interest on the following sums for one year:—

£1,816 15*s.* 10*d.* at $3\frac{1}{4}$ per cent.
£1,953 16*s.* 4*d.* at $5\frac{1}{2}$ per cent.

7. A person, whose age is 25, insures his life for £3,500, at the rate of £2 5*s.* 4*d.* per cent.; calculate the annual premium.

8. Determine to four places of decimals the fourth root of 73497625.

ALGEBRA, &c.—*Professor Allman,* LL.D.

1. Prove the following identities:—

$(a+b+c)^3-a^3-b^3-c^3-3\,(a+b)\,(b+c)\,(c+a)=0$;
$(a+b)^3+(b+c)^3+(c+a)^3-3\,(a+b)\,(b+c)\,(c+a)=2\{a^3+b^3+c^3-3\,abc\}$.

2. Solve the following equations:—

$$\frac{2x+3}{10-x}=\frac{2x}{25-3x}-6\tfrac{1}{2}\,;\quad \sqrt{2x+7}+\sqrt{3x-18}=\sqrt{7x+1}.$$

3. Construct an isosceles triangle, which shall have each of the angles at the base double the vertical angle. Divide a right angle into five equal parts.

4. Construct a triangle, being given the base, the vertical angle, and the rectangle under the sides.

5. Being given the ratio of the tangents of two angles, find when the difference of the angles is a maximum.

6. Find the sine of an angle of a triangle in terms of the sides.

7. Given log $2=\cdot301030$ and log $3=\cdot477121$; find the logarithms of 5, 27, 36 and 16.

Professor Curtis, LL.D.

8. The sum of two numbers is 10, and the sum of their fourth powers 2482; determine the numbers.

9. Find x and y from the two equations—

$$x+2y+\frac{3x}{y}=16,$$
$$3x+y+\frac{3x}{y}=23.$$

10. Prove that all lines cut as in the eleventh proposition of the second book of Euclid are similarly divided. *Appendix, No. 2.*

11. Given three points, A, B, and C, situated in one plane, draw through C a line DE, such that, if AD, BE, be drawn, making the angles ADC, BEC, each of given magnitude, the sum of the three lines AD, DE, and EB, shall be given. Scholarship Examinations.

12. Given $\tan\frac{z}{2} = \tan\frac{x}{2}\tan\frac{y}{2}$, prove that $\tan z = \frac{\sin x \sin y}{\cos x + \cos y}$.

13. Given that the sine of an angle is equal to $\frac{5}{7}$, calculate the sine of twice the angle, and the sine of the half of the angle.

14. Given $a=3$, $b=4$, $C=90°$; solve the triangle—

$\log 2 = \cdot 3010300$, L sin 53° 7′ = 9·9030136, L sin 53° 8′ = 9·9031084.

Prizes at Entrance.

Geometry.—*Examiner, Professor Allman,* LL.D.

1. Prove that the circle described through the feet of the perpendiculars of a triangle bisects the sides of the triangle, and the segments of the perpendiculars towards the angles.

2. Prove that the square of the side of the regular pentagon inscribed in a circle is equal to the sum of the squares of the sides of the regular decagon and hexagon inscribed in the same circle.

3. Prove that the rectangle under the diagonals of a quadrilateral inscribed in a circle is equal to the sum of the rectangles under the opposite sides.

4. Construct a polygon which shall be similar to a given polygon, and have a given perimeter.

5. Two chords of a circle cut at right angles, show that the sum of the squares on their segments is equal to the square on the diameter.

Professor Curtis, LL.D.

6. Given the bases of two triangles, which have a common vertex, in magnitude and position, and the sum of their areas, find the locus of the common vertex.

7. Given two lines A B and C D, find a point E in A B, and a point F in C D, so that the rectangle under A E and C F shall be equal to one given square, and the rectangle under B E and D F shall be equal to another given square.

8. Draw a tangent to a given circle so that the intercept made on it by a diameter, and a line perpendicular to it may be divided by the point of contact into segments, the rectangle under which shall be equal to a given square.

9. Inscribe in a given triangle another, each of whose sides shall be parallel to a given line.

10. The vertical angle of a triangle is equal to an angle of an equilateral triangle; prove that the equilateral triangle described on the base is less than that described on the sum of the two sides by three times the original triangle.

Appendix, No. 2.

Scholarship Examinations.

Law Scholarship—Third Year.

Jurisprudence, Civil Law, &c.—*Examiner, Professor Lupton,* M.A.

1. Examine the position "that every government continues through the people's consent."

2. Define *a right, person, status, thing.*

3. What is the distinction between *jus scriptum,* and *jus non scriptum?* Examine the nature of *jus moribus constitutum, jus prudentibus compositum,* and *jus receptum,* respectively.

4. With what meaning, and under what circumstances, does the term *equity* first appear in the phraseology of jurisprudence?

5. What is the nature and value of the distinction between *jus publicum* and *jus privatum?*

6. Distinguish between *potestas, mancipium,* and *manus,* and mention the leading incidents of each. How do you account for the gradual extinction of the two last?

7. Analyze carefully the essential elements in *mancipatio, occupatio, possessio, traditio, usucapio,* and *prescriptio.*

8. A man dies intestate, leaving a mother, a brother, three nieces (daughters of a deceased brother). How would his property be distributed in later Roman law?

9. A enters into a valid contract of sale with B for the absolute purchase of a specific chattel, and the price is agreed on. Nothing further takes place. The chattel is destroyed by inevitable causes. Upon whom by the Roman law did the loss fall? What are the English and French laws on the same subject?

10. What was comprised under the Roman term *injuria,* how might it be punished, and what persons were entitled to bring an *actio injuriarum?*

11. Give illustrations of, and criticise, the rule of English law which makes every felonious intent malicious.

12. State the arguments for and against the appointment of a public prosecutor.

Law Scholarship—Second Year.

Jurisprudence and Civil Law.—*Examiner, Professor Lupton,* M.A.

1. Austin distributes the field of law into the Law of Persons, and the Law of Things; and he subdivides the Law of Things into Primary Rights and Sanctioning Rights. Explain and give illustrations of each of these divisions and subdivisions.

2. It has been maintained that the occupation of a determined territory is essential to the existence of an independent political society. Do you concur in this view, and if so to what extent and for what reasons?

3. Analyze the notions involved in the terms person, status, and thing.

4. Define a right.

5. To what extent and for what reasons should infancy, insanity, drunkenness, error, and imperitia be respectively admitted as grounds of exemption from criminal responsibility?

6. With what meaning and under what circumstances does the term *equity* first appear in the phraseology of jurisprudence?

7. "Ancient law subordinates the woman to her blood-relations, while a prime phenomenon of modern jurisprudence has been her subordination to her husband."

Explain this statement, and trace the history of the change.

8. Explain the fact that in the infancy of a legal system the law of delict or tort is of greater practical importance than in the maturity of jurisprudence.

9. "Omne jus quo utimur vel ad personas pertinet, vel ad res, vel ad actiones."

Explain and criticise this division, and contrast it with that adopted by Sir William Blackstone.

10. What was the Roman rule as to the degrees of consanguinity or affinity within which marriage was unlawful? To what extent did adoptive connexions form a bar to marriage?

11. What conditions were essential to the acquisition of dominium by usucapio and prescriptio?

12. Why was the institution of an heir essential in a Roman testament?

13. Enumerate the different ways in which a Roman Will might fail, using the technical terms in each case, and giving examples.

14. Give illustrations of, and criticise, the rule of English law which makes every felonious intent malicious.

15. Contrast the English and French modes of procedure at criminal trials.

Law Scholarship—First Year.

Jurisprudence.—*Examiner, Professor Lupton*, M.A.

1. Distinguish between positive law, positive morality, legislation, and deontology.

2. Define a Right.

3. What, according to Austin, are "the monstrous evils of judicial legislation?"

4. Austin distributes the field of law into the Law of Persons and the Law of Things; and he subdivides the Law of Things into Primary Rights and Sanctioning Rights. Explain and give illustrations of each of these divisions and subdivisions.

5. What, according to Maine, is the earliest form in which we meet with the conception of law, and in what does it differ from more mature views as to the nature of law?

How do you account for the fact that laws in their primitive conception have been referred to the direct inspiration of a divine agent?

6. Point out, and illustrate from Roman and English law, the influence of legal fictions in the development of law.

7. Trace the connexion between the Jus Gentium and the Jus Naturale of the Roman Jurists, and show how the conceptions meet and blend.

8. Explain the nature of the Roman Patria Potestas, and show how it illustrates the character of Archaic Society.

9. "The movement of progressive Societies has hitherto been a movement from *Status* to *Contract*."

Explain the terms *Status* and *Contract*, and point out the meaning of the above maxim.

10. Define *Obligation* and *Contract*, and point out in what respect the modern conception of obligation differs from that which is found in the Corpus Juris.

11. Distinguish between a *contract* and a *pact* in Roman Law. Enumerate the four old forms of contract in what you believe to have been their historical order.

Appendix, No. 2.

Scholarship Examinations.

12. State the order of time in which the different portions of the Corpus Juris were compiled. What branches of the older Roman Law enter into each of them?

13. Explain the incidents and effects of mancipation, usucapio, prescriptio, and in jure cessio.

14. Give an account of the *actio sacramenti.*

15. Explain the mode of civil procedure in the time of Justinian.

Engineering Scholarship—Third Year.

Examiner, Professor Allman, LL.D.

1. Discuss briefly the general equation of the second degree.

2. Given the base and the difference of the base angles of a triangle; find the locus of the vertex?

3. Find the equation of a parabola referred to two tangents as axes of co-ordinates.

4. State and prove Lagrange's theorem on the limits of Taylor's theorem.

5. Differentiate: $\tan^{-1}\frac{a+bx}{b-ax}$; $\frac{\sqrt{(1+x^2)}+\sqrt{(1-x^2)}}{\sqrt{(1+x^2)}-\sqrt{(1-x^2)}}$; $x^{\frac{1}{x}}$.

6. Prove the expression for the radius of curvature at any point of a given curve: $\rho = \frac{\left\{1+\left(\frac{dy}{dx}\right)^2\right\}^{\frac{3}{2}}}{\frac{d^2y}{dx^2}}$.

7. Given the vertical angle of a triangle in magnitude and position and its area; find the envelope of its base.

8. Find the following integrals:

$$\int \frac{dx}{(x^2+a^2)^{\frac{1}{2}}}; \quad \int e^x x^2 dx; \quad \int \frac{dx}{a+b\tan x}.$$

9. Show that the integral $\int x^{m-1}(a+bx^n)^{\frac{p}{q}}\,dx$ can be found immediately, if

1° $\frac{m}{n}$ be a positive integer,

2° $\frac{m}{m}+\frac{p}{q}$ be a negative integer.

10. Prove that the area of a cycloid is three times the area of its generating circle.

Examiner, Professor Townsend, M.A.

1. The angles of elevation of the top of a tower are observed from two points on the same horizontal line with the base, and the distance between these points is given; if a small error is made in one of the observed angles find corresponding error in the height of the tower.

2. Given two parallel lines of railway, and the distance between them m, how would you unite them with an s curve of given radius r, having a straight bit in the middle, whose length is l?

3. The focal length of a lens is 12·5 inches, find the interval between two parallel cross wires in the diaphragm, so that 1 foot in height may correspond to a distance of 3 chains from the staff to the principal focus in front of the lens.

4. The sides of a triangle are 850 links, 1,490 links, and 1,882 links, find the acreage in English and Irish measure.

5. Given Bidder's tabular numbers, viz., the red=69·7, and the black = 1,996, corresponding to two extreme heights. Find MacNeill's corresponding tabular number in *first* series, and also those in *second* series, the base being 30 feet, and the ratio of slopes $1\frac{1}{2}$ to 1.

6. Explain the adjustment of the instrument set before you (level).

7. Explain the adjustments of the theodolite set before you.

8. Read the verniers set before you.

9. Describe the mode of putting in a railway curve by means of a transversal, and prove the equations which give three independent points on it.

10. The scale of a map is four feet to one mile, find the length of a line on it whose square represents 120A. 2R. 30P.

MIXED MATHEMATICS.—*Examiner, Professor Curtis,* LL.D.

1. Determine the mechanical advantage in the case of the endless screw.

2. Find the centre of gravity of the portion of a solid sphere cut off by a plane.

3. A ball, whose co-efficient of elasticity is e, falls vertically from a height, h, upon a plane, whose inclination to the horizon is β, show that the *latus rectum* of the parabola, described after the rebound, is equal to $h\,(1+e)^2 \sin^2 2\,\beta$.

4. The initial point and initial velocity of projection being given, prove that the same point on any line passing through the initial point may be reached by two different paths, and that the angle between the two corresponding directions of initial motion is bisected by the direction of projection, which corresponds to the maximum range on the line.

5. The *s.g.* of gold being 19·3, and that of copper 8·6, find the *s.g.* of an alloy containing 3 oz. of copper and 25 oz. of gold.

6. Find the centre of pressure of a square sunk in any way in a liquid.

7. Establish the law for determining the relative index of refraction of two media, whose absolute indices of refraction are given.

8. Deduce the expression for the magnifying power of a convex lens, and compare its effect relatively to a near-sighted and a far-sighted person.

EXPERIMENTAL PHYSICS.—*Examiner, Professor Curtis,* LL.D.

1. On what principle is the reflexion of sound explicable?

2. A difference is perceptible in any given note as produced by two different instruments; account for this fact.

3. Trace the intervals between the consecutive notes from any given note up to its octave, and explain what is meant by musical temperament.

4. Enumerate the different ways in which the temperature of water at its maximum density has been determined.

5. Give Dalton's laws regarding the mixture of gases and vapour.

6. Two magnets, of different lengths and intensities, are rigidly connected, and capable of motion round a vertical axis passing through the centre of each, and perpendicular to both; determine the position of equilibrium.

7. Deduce the several laws, by which the magnitude of an electrical charge can be estimated by the electrometers in ordinary use.

Appendix, No. 2.

Scholarship Examinations.

8. How may the intensity of the earth's magnetic force at two places on the earth's surface be compared?

9. Prove that in a Leyden jar the free charge is proportional to the total charge.

10. Deduce the law of polarity of a helix, assuming Ampere's law.

Engineering Scholarship—Second Year.

Examiner, Professor Townsend, M.A.

1. Given the projections of three points, find the projections of the circle passing through them.

2. Find the projections of the points in which a given line meets a given oblique cylinder.

3. Through a given point draw a line, making a given angle with a given plane, and meeting a line in that plane.

4. Through a given point draw a plane, making given angles with the planes of projection.

5. (*a*) Draw a tangent from a point outside to a parabola.
(*b*) Draw a tangent at any point to a cycloid.

6. (*a*) The distance between two points on a French map is 50·799 millemetres, the representative fraction is $\frac{1}{50000}$, find the distance between them in English miles.
(*b*) The scale of a map is 2·5 chains to the inch, this is reduced to half its area, find the scale of the new map in chains to the inch.

7. Construct the perspective of the accompanying projections.

8. Construct the isometric of the accompanying projections.

9. Construct a pentagon on a given line.

10. Given the span and rise of a segmental arch, construct the curve without finding the centre, and show how to measure the length of the arc approximately.

Scholarships of the Fourth Year.

Practical Anatomy.—*Examiner, Professor Cleland.*

1. Describe the anatomical connexions of each of the coverings of an oblique inguinal hernia.

2. Describe the position, as related to the walls of the chest, of the heart and the arterial trunks coming off from it.

3. Describe the parts brought into view by complete reflexion of the trapezius muscle and removal of the connective tissue beneath it.

4. Describe the extent and relations of the common carotid artery of the right side.

5. Describe the principal varieties of surgical importance in the arterial trunks of the arm and forearm.

Surgery.—*Examiner, Professor Browne.*

1. How may death be produced by injury of the head without fracture of the skull, give the symptoms by which you would diagnose such injury, and the treatment you would adopt to relieve them.

2. A man gets a blow on the head which renders him insensible, he recovers, but subsequently he gets hemiplegia succeeded by coma and death.—What are the pathological conditions you would expect to find

on post mortem examination to account for the symptoms during life? How may those conditions vary or be altogether wanting? *Appendix, No. 2.*

3. What are the symptoms by which you would diagnose popliteal aneurism? Give the different modes of treatment proposed for its cure, and what are the circumstances which would require you to amputate above the knee joint. Scholarship Examinations.

4. What are the symptoms of aneurism of the aorta, give the progress of those symptoms as they arise in the course of the disease, the portion of the vessel in which it usually commences, the period of life and the causes which may produce it.

MEDICAL JURISPRUDENCE.—*Examiner, Professor M'Coy.*

1. What is the earliest period after impregnation at which one could with confidence declare a woman pregnant, where the medical investigator is under the most serious responsibility? Describe minutely how you could arrive at your decision in the affirmative.

2. What difference appears in treating arsenious acid with litmus, and with syrup of violets?

3. The dead body of an infant is found; what would show on external examination that it was born alive, and what further investigation besides would declare how long it had lived?

4. What results follow, combining arsenious acid in solution with solution of yellow chromate of potassa?

5. How may cadaverous discolouration be distinguished from bruises given during life?

6. What are the antidotes for a poisonous dose of oxalic acid?

7. What opinion would you give a life assurance office on a case of the so-called schirro-contracted rectum, of short duration as yet, where little or no effect seemed to be produced on the general health?

MATERIA MEDICA.—*Examiner, Professor M'Coy.*

1. In what respects does corrosive chloride of mercury differ from other preparations of the metal in its therapeutic actions and physiological signs? Mention a few cases where it is the *best* mercurial to administer, and other cases where it is the *worst?*

2. What practical distinction is required in selecting one of the diaphoretic class of medicines? and illustrate its necessity by cases for a preference or avoidance.

3. Mention three or four distinct local actions of nitrate of silver in stricture of the urethra, and the kind of stricture in which one or other of those actions may require the application of the silver salt.

4. What are the preparations of conium in the Pharmacopœia for internal use? What objections may be made to the extract of conium of the Pharmacopœia?

Prescription.

A mixture of chlor. HYDRARGYRI COR. for secondary venereal symptoms, with full directions of what quantity, and at what times it is to be used. [No contractions.]

Appendix, No. 2.

Scholarship Examinations.

Third Year's Scholarship.

Practical Anatomy.—*Examiner, Professor Cleland.*

1. Describe the movement of the radius in pronating the forearm, and the arrangements of articulating surfaces and ligaments by which it is rendered possible.

2. Give a full description of the transversalis abdominis and triangularis sterni muscles, pointing out their relations one to the other.

3. Describe the origin, course and branches of each of the following arteries :—the inferior thyroid, the lingual, the internal maxillary, and the occipital.

4. Describe the tricuspid, mitral and aortic valves of the heart in detail.

5. Describe the following parts of the brain :—the optic tracts, the lamina cinerea and the septum lucidum.

Materia Medica.—*Examiner, Professor M'Coy.*

1. In making the liquor sodæ arseniatis, why are the crystals of the arsenical salt directed to be dried before they are dissolved in water? The dose of this mixture.

2. Distinguish between Tannic and Gallic acids—first, in their chemical composition; second, in the cases in which the one or the other acid is specially employed; and third, the dose of each, and how administered in its peculiar case.

3. What are the preparations of opium in the Phar.? for internal use, and the relative quantity of opium in each.

4. What are the symptoms of quininism? In what state is quinia in the bark? Which of the barks contain the largest comparative quantity of quinia? Dose of quinia in ague; and at what times is it to be given in that disease?

Second Year's Scholarships.

Practical Anatomy.—*Examiner, Professor Cleland,* M.D.

1. Describe the os magnum of the carpus, mentioning the distinctive characters of each of its surfaces and articular facets.

2. State how the ribs differ one from another in length, curve, characters of head, and position of the angle.

3. Describe the inlets and outlets of the following canals :—the vidian, the infra-orbital, the inferior dental, and the aquæductus Fallopii.

4. Describe the attachments and characters of the ligaments uniting the calcaneum, astragalus and scaphoid bone one with another.

5. Describe the structure, attachments and various actions of the biceps muscle of the arm.

6. Describe the structure and attachments of the pectineus, adductor longus, adductor brevis, and gracilis muscles.

Chemistry.—*Examiner, Professor Rowney,* PH.D.

1. What is meant by chemical affinity?

2. Describe the mode of preparation and the properties of hydrochloric acid.

3. What is a compound radical? Give some examples.

4. Describe the process for obtaining sulphuric acid.
5. Where is starch principally found, and how may its presence be ascertained?
6. What is meant by the specific heat of a body?
7. Describe the method of taking the specific gravity of a body heavier than water?
8. Give the formula of ether, and state how it is obtained.
9. Give the composition of the principal varieties of sugar.
10. How is carbon dioxide obtained? Mention its principal properties.
11. State the composition and properties of the atmosphere.
12. How is chloride of lime obtained and to what uses is it applied?

BOTANY.—*Examiner, Professor Melville,* M.D.

1. State the characters of the solanaceæ, coniferæ, liliaceæ.
2. Describe the structure of the stem in a tree-fern, and in a monocotyledon.
3. Describe the function of nutrition in plants.

ZOOLOGY.

1. Peculiarities in the skeleton of fishes.
2. Reptiles.—Orders and their characteristics.
3. Characteristics of the functions of the ungulata.

MATERIA MEDICA.—*Examiner, Professor M'Coy.*

1. What is the colour of the mist. ferri comp.; its components; the cases in which it is found most useful, and the systemic condition that chiefly requires it?
2. What are the officinal parts of jalap, hyosciamus, una ursi, and kino.
3. What purposes is glycerium, acidi carbolic of the Phar. intended for? How is it prepared?
4. What renders corrosive chlor. hyd. and sulph. quini more soluble in cold water for prescription?

EXPERIMENTAL PHYSICS.—*Examiner, Professor Curtis,* LL.D.

1. Apply the principle of conservation of energy to determine the equation of equilibrium in the inclined plane, and in the screw, both being supposed smooth.
2. Enumerate the principle of conservation of energy, so as to include the consideration of friction.
3. Describe the hydraulic press, and deduce an expression for its mechanical advantage.
4. Describe the principal phenomena due to capillarity.
5. In using a mercurial barometer, why is it necessary for accuracy that the tube should be vertical?
6. Explain some of the methods for estimating the number of vibrations corresponding to a given note.
7. Describe the differential thermometer.
8. How did Leslie freeze water by the aid of an air-pump?
9. How may the magnifying power of a microscope be experimentally determined?
10. Describe Coulomb's balance of torsion, and the experiments by which he deduced the law of electrical attraction and repulsion.

Appendix, No. 2.

Scholarship Examinations.

MATHEMATICS.—*Examiner, Professor Allman*, LL.D.

1. Prove that the degree of the final equation, which results from the elimination of one of the unknown quantities between two equations, containing two unknown quantities, cannot exceed the product of the degrees of the two equations.

2. Transform $\frac{d^2u}{dx^2}+\frac{d^2u}{dy^2}+\frac{d^2u}{dz^2}$ from rectangular to polar co-ordinates.

3. Investigate the conditions which must be satisfied, in order that a function of two independent variables may have a maximum or minimum value.

Ex. Find the least distance between two straight lines in space.

4. Find the envelope of a plane

$$L\cos\alpha+M\cos\beta\sin\alpha+N\sin\alpha\sin\beta-R=0,$$

where L, M, N, and R, are given linear functions of the co-ordinates x, y, z, and α and β are variable parameters.

5. Investigate the invariants of the general equation of the second degree, in three variables, referred to rectangular co-ordinates.

6. Common tangent planes are drawn to the ellipsoids

$$\frac{x^2}{a^2}+\frac{y^2}{b^2}+\frac{z^2}{c^2}=1, \qquad \frac{x^2}{a'^2}+\frac{y^2}{b'^2}+\frac{z^2}{c'^2}=1;$$

show that the perpendiculars upon them from the origin lie on the surface of the case $(a^2-a'^2)x^2+(b^2-b'^2)y^2+(c^2-c'^2)z^2=0$.

7. Prove that the sum of the reciprocals of the radii of curvature of two normal sections, at right angles to each other, is constant.

8. Being given a complete primitive of a partial differential equation of the first order; deduce the general primitive, and the singular solution.

9. A curve is such that for every point on it the following relation holds:—

$\left(\frac{N}{y}\right)^3=\frac{2\rho}{x}\left(\frac{S}{y}-\frac{y}{x}\right)$, in which N is the normal, S the subnormal, and ρ the radius of the curvature; determine the curve.

10. Integrate the differential equations:—

$$x\frac{dy}{dx}+y=y^2\log x;$$

$$x^2\frac{dy}{dx^2}-x\frac{dy}{dx}=3y;$$

$$z-px-qy=a\sqrt{x^2+y^2+z^2}.$$

NATURAL PHILOSOPHY.—*Examiner, Professor Curtis*, LL.D.

1. Prove that if a system of forces, acting on a rigid body, be reduced to three forces, X, Y, Z, acting along three rectangular axes, and three couples, L, M, N, whose axes are parallel to the directions of the forces, $LX+MY+NZ$ is invariable, however the origin and axes may be selected.

2. Two weights connected by a string, which passes over a smooth peg, and whose weight is neglible, rest each on a smooth curve, and are in equilibrio in all possible positions; prove that if one of these curves be a Cartesian oval, one of whose foci is at the given peg, and whose

axis is vertical, the other curve is also a Cartesian oval having one of its foci coincident with the peg.

3. A particle, placed on the surface of a rough ellipsoid, is acted on by a force directed towards its centre; prove that the particle will be in the state bordering on motion if placed anywhere on the curve of intersection of the ellipsoid with the cone, whose equation is

$$x^2y^2\left(\frac{1}{a^2}-\frac{1}{b^2}\right)^2+y^2z^2\left(\frac{1}{b^2}-\frac{1}{c^2}\right)^2+z^2x^2\left(\frac{1}{c^2}-\frac{1}{a^2}\right)^2=w^2\left(\frac{x^2}{a^2}+\frac{y^2}{b^2}+\frac{z^2}{c^2}\right)^2$$

4. A particle projected in a given direction, and with a given velocity, is acted on by a central attractive force defined by the law $\lambda r+\frac{\mu}{r^3}$; show that the equation of the orbit described is, *in general*, of the form

$$\frac{1}{r^2}=\frac{1}{a^2}\cos^2\left\{\frac{\sqrt{\lambda}ab}{\sqrt{\mu+\lambda a^2b^2}}(\theta+\alpha)\right\}+\frac{1}{b^2}\sin^2\left\{\frac{\sqrt{\lambda}ab}{\sqrt{\mu+\lambda a^2b^2}}(\theta+\alpha)\right\}.$$

For what particular value of μ does the above equation not give the orbit? Show that, in this case, the equation of the orbit is

$$r^2=\frac{A^2}{1+K(\theta+\alpha)^2}.$$

5. A particle is projected along a smooth groove, and is acted on by two centres of force, one acting as the mth, and the other as the nth, power of the distance; find the form of the groove, in order that the velocity of the particle should be uniform:—

(*a*) When m and n have any values.
(*b*) When $m=n=\div 1$.

6. Given a triangular area and two fixed points within it; determine how it must be sunk in a homogeneous heavy liquid, so that one of these points may be at a given depth, and the other may be the centre of pressure of the area.

7. Prove that caustics by reflection are, in general, rectifiable.

8. A ray parallel to the axis of X is incident on a reflecting paraboloid, $\frac{y^2}{b}+\frac{z^2}{c}=x$, at the point, α, β, λ, prove that the equations of the reflected ray are $\frac{x-\alpha}{\left(\frac{\beta}{b}\right)^2+\left(\frac{\gamma}{c}\right)^2-1}=\frac{y-\beta}{\frac{2\beta}{b}}=\frac{z-c}{\frac{2\gamma}{c}}$.

9. Describe the method of determining the obliquity of the ecliptic.

10. Explain the effect of aberration on the apparent position of a celestial object, and determine the aberratic curve, supposing the earth's orbit elliptical.

JURISPRUDENCE.—*Examiner, Professor Lupton*, M.A.

1. Compare the nature of a supreme federal government with that of a system of confederated states.

2. Analyse the notions involved in the terms—person, status, thing.

3. To what extent, and for what reasons, should accident, ignorance, infancy, insanity, and imperitia, be respectively admitted as grounds of exemption from criminal responsibility?

4. What, according to Austin, are "the monstrous evils of judicial legislation?"

5. What is the nature and value of the distinction between *jus publicum* and *jus privatum*?

Appendix, No. 2.

Scholarship Examinations.

6. "It is a known social law, that the larger the space over which a particular set of institutions is diffused, the greater is its tenacity and vitality." Comment upon this.

7. Illustrate the influence of the Stoic philosophy on Roman law.

8. Explain the nature of the Roman Patriâ-Potestas, and show how it illustrates the character of Archaic Society.

9. In what respects did the early Roman conception of a will differ from modern ideas as to the nature of a testament? How do you account for the difference?

10. What was the Roman contract of Emphyteusis, and what historical value attaches to it?

11. What was the Roman law as to the legitimation of natural children? State the English, French, and Scotch law on the same subject?

12. Enumerate and explain the Roman Consensual contracts.

POLITICAL ECONOMY.—*Examiner, Professor Lupton,* M.A.

1. State your views as to the nature and proper mode of discussing an economic problem.

In illustration of your views discuss the Ricardian doctrine of rent.

2. State and discuss the law of wages as depending on demand and supply, and notice an important modification of this law that has recently been proposed by Mr. Thornton.

3. When there are commercial relations between two countries, the profit of each country is in an inverse ratio with its demand for the imported commodities. Establish this proposition.

4. Point out to what manner and to what extent banking operations are capable of augmenting national industry.

5. Contrast *value* and *cost*, and mention the determining causes of each.

6. State summarily the chief arguments for and against:—

1. Large and small farms.
2. Direct and indirect taxation.
3. Defraying war expenses by loan or by the imposition of new taxes.

7. Describe the general phenomena of a commercial crisis.

8. Explain some of the proposals which have been made with a view to render the incidents of the income tax as fair as possible.

9. Explain what is meant by "correcting the Exchanges," and mention some of the so-called correctives.

Sessional Examinations.

SESSIONAL EXAMINATIONS, 1870.

METAPHYSICS.—*Professor Moffett,* LL.D.

1. Define Philosophy, Psychology, and Metaphysics. By whom was the name Psychology introduced? Explain the remark:—"The consciousness of distinct effects is the basis of Psychology."

2. What province was assigned to Metaphysics by Bacon? What by Descartes?

3. Explain the following statement:—"The differences among philosophers may be resolved ultimately into (I.) a difference of Psycholo-

gical Theory, accompanied by (II.) certain differences of Cosmological Conception, all subject to, or ending in (III.) a difference in respect to Ontological Belief."

4. Enumerate the leading articles of the Cartesian Philosophy. Point out what seem to be its errors.

5. Examine Descartes' proof of the existence of an external world.

6. Why chiefly was Bacon's Method unproductive?

7. What is the standing formula of Pantheism? By whom has this doctrine been maintained in ancient and in modern times? What propositions should you lay down in criticizing the doctrine?

8. Give a general account of the plan and argument of Locke's Essay.

9. Enumerate the chief faults that have been found with the Essay.

10. Give Berkeley's demonstration of the proposition—that we are not immediately cognisant of Distance.

11. Upon what is the difficulty founded which metaphysicians have felt in endeavouring to explain how we see objects erect by means of inverted images? What solutions of this fact have been proposed?

12. State the doctrine of Substance maintained by Descartes, Spinoza, Leibnitz, and Locke, respectively.

13. Give the views of Newton, Leibnitz, Clarke, and Herschel, with respect to Space.

14. On what grounds has a distinction been maintained between the Primary and Secondary Qualities of Body? How was this distinction expressed by Aristotle?

15. "Ireland may claim the distinction of having produced three Philosophers, each of whom formed an epoch in the history of thought." Illustrate this statement.

16. What were the two fundamental tenets of Hume's philosophy?

17. What is meant by the Philosophy of Common Sense? Explain the remark:—Common Sense is as Common Law? What are the Criteria of Principles of Common Sense?

18. Mention in order the most eminent Philosophers of Scotland. What are the leading characteristics of the Scottish School? To what doctrines was Reid's system antagonistic?

19. What is the Cardinal Principle of Kant's system? What is its great inconsistency? Explain what he meant by Synthetic *à priori* Judgments; by Reason as distinguished from Understanding; and by Practical Reason.

20. State and examine Kant's doctrine of Space and Time.

HISTORY.—*Professor Moffett*, LL.D.

1. What elements of modern European civilization can be traced up to Imperial Rome?

2. Define Nationality. When do you consider English Nationality to have been complete, and the true history of the English nation to commence?

3. Explain the following terms:—

Escuage, Tallage, Frankalmoign, Majores Barones, Estates of the Realm, Villein Regardant, Praemunire.

4. What laws regulating Labour and Trade were enacted in the reign of Edward III.? State the provisions of the first Poor Law, and the time of its enactment. How far does the policy of the present Poor Law differ from it?

Appendix, No. 2.

Sessional Examinations.

5. Are there any instances of Englishmen becoming Popes or Emperors of Germany? Name any that rose to these dignities; and the four most noted English Cardinals before the year 1600.

6. What is Hume's capital fault as an Historian? What argument has he drawn from the writings of Shakespeare in support of his view—that the government of Elizabeth was an uncontrolled despotism? How has this argument been controverted?

7. Mention the principal causes of the high prerogative of the Tudors? What was the principal grievance under that family? It has been said that the Tudors were as absolute as the Caesars:—Do you accept this statement?

8. "This fact alone is sufficient to refute those who represent Charles as having merely trodden in the footsteps of the Plantagenets and Tudors." What is the fact referred to?

9. What is Hallam's opinion as to the legality and the expediency of the sentence that brought Mary Queen of Scots to the scaffold?

10. Point out the causes which led to the success of the arms of Charles I. in the early period of the Civil War; and those which produced his subsequent defeat. Enumerate, with dates, the principal battles of that war; and name the generals on each side.

11. Describe the Conquest of Ireland by Strongbow; and mention the chief risings against the English rule down to the year 1650.

12. Describe the incidents of Cromwell's campaign in Ireland. State the policy he subsequently pursued towards this part of the Commonwealth, and trace its effects on the island.

13. What does Macaulay pronounce to be "The great English Revolution of the seventeenth century"?

14. Who was the first Layman that held the office of Lord Chancellor of England? Who was the last Ecclesiastic that filled any of the great Offices of State in England?

15. What statesman has been called "The Father of English Finance"? Mention some of his measures.

16. What was the last occasion on which the form *Le Roi* (or *La Reine*) *s'avisera* was pronounced in Parliament?

17. Who were the seven great "Captains of Industry" in England during the latter half of the eighteenth century, and what were their respective services?

18. Hume has observed—that actions at sea are seldom if ever so decisive as those on land:—Whence did he derive this conclusion? Show that this is a case of hasty generalization.

19. Give an account of the composition and functions of the French Parliament.

20. What period of French History is known as the age of the Renaissance and Wars of Religion?

ENGLISH LITERATURE.—*Examiner, Professor Moffett*, LL.D.

1. What languages spoken in Europe do not belong to the Aryan family?

Enumerate the members of the Romance group.

2. Enumerate in order of time the historical events which have successively affected the English Language, either by enriching its Vocabulary, or by modifying its Inflectional system.

3. Mention the various influences which were at work in the fourteenth century to lay the foundation of the supremacy which Chaucer won as the Father of English Poetry.

4. In what respects is the plan of the Canterbury Tales an improvement on that of the Decameron?

Chaucer takes one Tale from Dante?

About how much of Chaucer's design in the Canterbury Tales did he actually execute?

What is the latest historical event mentioned in the poem?

Several of the Pilgrims had travelled abroad, each with a different object?

5. Explain the following words and phrases:—Tabard, goliardeis, anelace, culpon, mormal.

a. "And every statute could he *plain by rote.*"

b. "*Wo was his coke, but if* his sauce were."

c. "For *him was lever han* at his beddes hed."

6. What does Spenser tell us of the purport of The Faery Queene?

There are two different kinds of Allegory in the poem?

What is meant by Irena in the Fifth Book?

Explain the following criticism:—"In The Faery Queene are united and harmonized three different elements which at first sight would appear irreconcilable."

In what attribute of a great poet is Spenser said to have been deficient?

7. Give the genealogy of Lucifera, and name her "Six sage Counsellours."

8. Explain the following sentences:—

a. "And downe to Plutoe's house are come *bilive.*"

b. "And *felly gnarre,* untill dayes enemy
Did him appease;"—

c. "Typhoeus joynts were stretched on a *gin.*"

d. "Through unadvized rashnesse *woxen wood.*"

e. "This is the *wandring wood.*"

9. Quote Spenser's reference to Chaucer, and his supposed allusion to Shakespeare.

10. Quote Milton's references to Chaucer, Spenser, Shakespeare, and Jonson.

11. Name the Dramatic works of Milton.

In which of his works does his dramatic power best appear?

Enumerate his principal Prose works.

What are the characteristics of his Prose?

12. Give the date of The Advancement of Learning, and of the De Augmentis Scientiarum?

Of how many Books did each work consist?

13. What is Bacon's classification of human Learning, and on what principle does it rest?

14. Explain the term "Idols," and give Bacon's classification of Idols.

15. Name twelve English Poems which you would place in the foremost rank; and assign reasons for your selection.

16. Name the subjects and the authors of the following poems:—

The King's Quair, The Bruce, The Loves of the Triangles, London, The Gentle Shepherd, Thalaba, The White Doe of Rylstone, Evangeline, The Idylls of the King.

17. Give the dates of the following events:—

The publication of the first Folio edition of Shakespeare's Plays, of

Appendix, No. 2.

Sessional Examinations.

Paradise Lost, of the commencement of The Spectator, of Johnson's Dictionary, of Waverley.

18. Give the dates of the births of Dryden, Swift, Pope, Goldsmith, Wordsworth, Scott, Coleridge, Moore, and Byron.

ENGLISH LANGUAGE.—*Examiner, Professor Moffett*, LL.D.

1. "The existing European languages may be nearly all comprehended under five divisions."

a. Enumerate these divisions; and state how many of them belong to the Indo-European family.

b. What is the principal exception indicated by the word "nearly" in the sentence quoted above?

2. "Original English," "Broken English," "Mixed English":—Explain those terms, and show that the succession of the corresponding stages represents the entire History of our Language.

3. Define a Root. There are two kinds of Roots? Explain the formation of the word "did."

4. What supposition has been made with respect to the origin of *s* or *es*, a Plural ending in various languages; and of *s* that appears in the third person singular of the Verb (e.g. "loves")?

5. Trace the history and explain the signification of the termination—*ing*. How are Participles in *ing* distinguished from Infinitives in *ing*? What is meant by a Gerundial Infinitive?

6. Discuss the connection between "my" and "mine", "thy" and "thine", "your" and "yours". Should you write "yours" or "your's"?

7. What remarkable peculiarity has been observed with respect to English words denoting the degrees of family relationship?

8. Give the original meaning of each of the following words:—*Impeach, imp, baffle, villain, pagan, coincidence, exorbitant.*

9. Assign Etymologies for the following words:—*Girl, daughter, bridegroom, uncle, aunt, stranger, wrong, better, worse, conscience.*

10. Correct or justify the following sentences:—

a. Will I take this letter to the post?

b. Pray take this letter to the post. I shall, Sir.

c. This noble nation hath of all others admitted fewer corruptions.

d. Beelzebub, than whom,
Satan except, none higher sat.

e. Thou great first Cause, least understood,
Who all my sense confin'd.

f. An ostentatious, a feeble, or an obscure style, are always faults.

g. The third and the fifth Chapters of 12 Car. II. The third and fifth Chapter.

11. In what sense does Shakespeare use each of the following words:—*Owe, atone, conceit, composition, incontinent, favour, apparent, fond, inhabitable*?

12. What Greek equivalents are assigned for the italicized words in the following passages:—

a. The which he hath detained for *lewd* employments,
Like a false traitor and *injurious villain.*

b. With eight tall ships, three thousan *men of war.*

c. But if you *faint*, or fearing to do so;

d. Thou dost *consent*
In some large measure to thy father's death.

13. Where in *Richard II.* is the doctrine of the indefeasible right of Kings asserted?

14. In what terms are the Crusades referred to?

15. Quote as fully as you can the passage in which Macaulay expatiates on the theme:—A great writer is the friend and benefactor of his readers.

16. Explain the references in the following passages, and give the meanings of the words in Italics:—

a. A modern reader can make shift without Œdipus and Medea, while he possesses Othello and Hamlet. If he knows nothing of Pyrgopolynices and Thraso, he is familiar with Bobadil, and Bessus, and Pistol, and Parolles. If he is shut out from Nephelococcygia, he may take refuge in Lilliput.

b. It is one of the *Idola Tribus.*

c. We are judging Manlius in sight of the Capitol.

d. He was now in a *chrysalis* state.

e. His language, where he could spare or pass by a jest, was nobly *censorious.*

f. A man who pays daily sacrifice to Nemesis.

Senior Class.

Logic.—*Examiner, Professor Moffett,* LL.D.

1. Explain the definition—"Logic is the science of the Formal laws of Thought." Specify the Matter and the Form in the Concept, the Judgment, and the Syllogism, respectively.

2. Discuss the principal objections that have been urged against the Syllogistic Theory.

3. Can there be one universal Criterion of Truth? Refer to the opinions of Plato, Descartes, and Wolff.

4. The Law of Identity is said to be the regulating principle in Affirmative Categorical Syllogisms:—Define the Law, and explain the statement.

5. What is the principle of the Sufficient Reason? Has it a Logical value?

6. Explain the principal theories of Predication.

7. Prove that the laws of Contrary and Subcontrary Inference are superfluous.

8. Prove that no Syllogism can violate both the Rules of the First Figure.

9. Given the Major Term the subject of the Major Premise; prove that the Conclusion cannot be A.

10. Given A to be true; of how many Propositions can you infer the truth and falsehood, according to Dr. Thomson?

11. What is the aim or purpose of Hypothetical Reasoning? Is it essentially distinct from Categorical? Explain the following remarks:—"Conditionals may appear either as Substitutive or Attributive judgments: Disjunctive judgments may all be referred to the head of Sustitutive."

12. Distinguish between Argumentum ad hominem and Argumentum, ad absurdum. On what principle does the validity of Indirect argument depend? Is it of less force than the Direct form of inference? In *controversy* the Indirect form of refutation is often preferred: why?

13. What is the great problem of Induction? State the various processes which have been erroneously designated Inductions.

Appendix, No. 2.

Sessional Examinations.

14. How is it that a Chapter on Causation forms a part of Inductive Logic? Define Cause; and explain what is meant by the Composition of Causes.

15. Explain and illustrate the Conjoint Method of Agreement and Difference. What renders this method necessary? And what degree of confidence does it warrant?

16. State the exact nature and force of the argument from Analogy, more especially when employed in refutation.

17. Give the rules of Definition, and examine the following definitions:—"John was the King in whose reign Magna Charta was passed:" "A Disjunctive Proposition consists of two or more Categoricals connected by the propositions either and or:" "The Judicial power is not the Legislative."

18. State the chief peculiarities of Sir W. Hamilton's Logic.

19. How did Galen, Porphyry, Averroes, and Petrus Hispanus respectively contribute to the progress of Logical science?

20. Explain the following passage:—"Between Nominalism and Conceptualism there is no real difference, unless in conjunction with the latter we maintain the power of the mind to form Universal notions, unaided by verbal or other symbols. And even then, all Nominalism will be Conceptualism, though all Conceptualism will not be Nominalism.——But the fundamental error of Hobbes and his followers is not their doctrine of Universal *Terms*, but their theory of the import of Propositions."

Junior Class.

Examiner, Professor Moffett, LL.D.

1. State the names, and, in a general way, the contents of the divisions of the Organon.

2. What is the "Matter" of a Proposition? How are Propositions divided with reference to it?

3. Compare the statements of the Supreme Regulating Principle of Reasoning which have been given by eminent writers on Logic. Are they essentially different?

4. Give Aristotle's definition of Syllogism; and state the different methods which have been employed in treating the Syllogistic Figures.

5. Define Petitio Principii; and discuss the allegation—that the Syllogism is a Petitio Principii.

6. Determine what Mode may be common to all the Figures.

7. Given the Middle Term subject of an Affirmative Premise, and the Minor Term Universal; determine the Mode.

8. Prove that a Universal Conclusion, of either Quality, can only follow from Premises having the Middle Term differently quantified.

9. Prove the conclusiveness of Reductio ad Impossibile; specifying the several logical principles which it applies.

10. "If the conclusions of Tacitus had been correct, the permanent existence of a mixed government would have been impossible; but experience has disproved this, and convicted the historian of error."

Reduce this Conditional Syllogism to Camestres, and thence to Celarent; and show that all such Syllogisms are reducible to Barbara.

11. The sources of error in any argument may be reduced to three? Institute a classification of Fallacies based on this analysis.

12. Examine the validity of the following arguments; indicating the Subject and Predicate in the several Propositions:—

a. "A man who is indifferent about all religion is one who does not seek to force his religion on others; this man does not seek to force his religion on others: he is, therefore, indifferent about all religion."

b. "Interest attaches to all plants, and rarity may be asserted of many plants: everything rare, therefore, is also interesting."

13. State in syllogistic form the old puzzles on the subject of Motion; and show where the fallacy lies in each case.

14. Define Probability; and state, and illustrate by examples, the two modes of computing Probability.

15. Explain the precise nature and give the rules of Division. Examine the following divisions:—"Propositions are Affirmative, Hypothetical, and Negative:" "Mental Science is divided into Logic, Ethics, and Psychology:" "The Digitigrade animals are divided into Sheep, Goats, Oxen, Horses, the Cat kind, Foxes, Wolves, and Dogs.

16. Enumerate the Aristotelian Categories. Of what use are they in Logic?

17. Define Infima Species; and divide it according to its Extension and Comprehension.

18. Give Aristotle's definition of Induction. What different accounts have been given of the *form* of the Inductive Syllogism? Which do you prefer, and why?

19. Enumerate, with dates, the great Schoolmen sent forth from Italy, Germany, France, and the British Isles, respectively.

20. Give some account of the controversy respecting Realism, accurately defining the several theories. State what you conceive to be the most reasonable doctrine.

Honors—First Year.

Mathematics.—*Examiner, Professor Allman,* LL.D.

1. Prove that the radius of the circle passing through the centres of the three escribed circles of a triangle is double of the radius of the circumscribing circle.

2. Through a given point within the legs of a given angle, a straight line is drawn, so that the intercept between the given point and one leg is equal to the intercept between the foot of the perpendicular, let fall from the vertex of the given angle upon the straight line, and the other leg; show that it is the shortest line which can be drawn through the given point, and terminated by the legs of the angle.

3. Prove the formula $\tan^{-1}x + \tan^{-1}y = \tan^{-1}\left\{\frac{x+y}{1-xy}\right\}$.

Assuming that the arc can be expanded in odd powers of the tangent, apply this formula to investigate the series by the method of indeterminate co-efficients.

4. Find the volume of a parallelepiped in terms of its edges, and their inclinations with one another.

5. In a spherical triangle if θ, ϕ, ψ be the arcs bisecting the angles A, B, C, and terminated by the opposite sides, show that

$$\cot\theta\cos\frac{A}{2} + \cot\phi\cos\frac{B}{2} + \cot\psi\cos\frac{C}{2} = \cot a + \cot b + \cot c.$$

6. Prove that the total surface of a cylinder circumscribed to a sphere, the surface of the sphere, and the total surface of an equilateral

Appendix, No. 2.

Sessional Examinations.

cylinder (whose height is equal to the diameter of its base) inscribed in the same sphere, are in harmonic progression.

7. Determine the relation between q and r which must be satisfied in order that the equation $x^3 - qx + r = 0$ may be put into the form $x_4 = (x^2 + mx + n)^2$; and solve in this manner the equation $8x^3 - 36x + 27 = 0$,

8. Transform the equation $x^4 + qx^2 + rx + s = 0$, whose roots are $\alpha, \beta, \gamma, \delta$, into another, whose roots are $\beta + \gamma + \delta + \frac{1}{\beta\gamma\delta}$, ...

9. Show that the roots of the cubic equation

$$\begin{vmatrix} (a-x), & c, & b \\ c, & (b-x), & a \\ b, & a, & (c-x) \end{vmatrix} = 0.$$

are all real.

10. If the formulae for effecting any transformation of co-ordinates be $x = aX + bY + c$, $y = a'X + b'Y + c'$, prove that $(ab - a'b')(ab' - a'b) = bb' - aa'$.

11. Find the condition that four points should lie on a circle. Give the geometrical interpretation of the condition.

12. Show that the locus of a point such that the tangents drawn from it to two given circles shall have a given ratio is a circle; find the co-ordinates of the centre of this circle.

Honors—Second Year.

1. Find the parameter of the parabola given by its general equation.

2. Find the locus of the intersection of tangents drawn at right angles to a pair of conjugate diameters of an ellipse.

3. Interpret the equation in trilinear co-ordinates $\alpha\gamma = k\beta\delta$, and deduce from it 'Pascal's theorem'—the three intersections of the opposite sides of any hexagon inscribed in a conic section are in one straight line.

4. If $y = a + \frac{x}{2}(y^2 - 1)$, expand y in powers of x.

5. Eliminate the arbitrary function from the equation

$$z + \sqrt{(x^2 + y^2 + z^2)} = x^{1-a}\phi\left(\frac{y}{x}\right).$$

6. Explain Lagrange's *Method of Multipliers*, and apply it to the solution of the following problem. Render $(x-\alpha)^2 + (y-\beta)^2$ a perfect square by a suitable determination of α and β, the two variables being connected by the equation $ax^2 + 2hxy + by^2 + 2gx + 2fy + c = 0$. Give the geometrical interpretation of the result.

7. From a given point on the circumference of a given circle chords are drawn, and on these, as diameters, circles are described; it is required to find their envelope.

8. Determine the cases in which the integral

$$\int x^{m-1}(a + bx^n)^{\frac{p}{q}}\,dx \text{ can be found immediately.}$$

9. Find the area of a sector of a hyperbola bounded by straight lines passing through the centre.

10. Find the following integrals:—

$$\int \frac{\sqrt{x}}{\sqrt{(a^3 - x^3)}}dx\,; \quad \int \frac{\sin^2\theta d\theta}{\cos^8\theta}\,; \quad \int_0^{\frac{\pi}{4}} (\tan x)^9 dx.$$

11. In the parabola $y^2 = 4mx$, prove that $s = t - m\log\left(\tan\frac{\alpha}{2}\right)$, where α is the angle, which the tangent to the curve at the extremity of the arc s makes with the axis of x, and t is the length of this tangent intercepted by the axis of y; the arc s is measured from the vertex. *Appendix, No. 2.* Sessional Examinations.

12. Hence, show that if a parabola rolls without sliding on a fixed straight line, the focus describes a catenary.

Honors—Third Year.

1. Find the equation of a sphere.

Prove that the plane of intersection of two spheres is perpendicular to the straight line joining their centres.

2. Find the conditions that the general equation of the second degree should represent a surface of revolution.

3. Prove that the rectangle under the perpendiculars, let fall on any tangent plane of an ellipsoid from its centre and from the pole of this plane with respect to a confocal surface, is constant.

4. Find the expression for the angle of torsion of a curve of double curvature—

$$\frac{d\theta}{ds} = \frac{\mathrm{X}d^3x + \mathrm{Y}d^3y + \mathrm{Z}d^3z}{\mathrm{X}^2 + \mathrm{Y}^2 + \mathrm{Z}^2}, \text{ where } \mathrm{X} = dyd^2z - dzd^2y, \text{ \&c.}$$

5. Find the equation of the right conoid passing through a helix, and the axis of the cylinder on which the helix is traced.

6. Investigate the conditions for determining the umbilics of a given surface. Find the umbilics of the paraboloid

$$\frac{x^2}{a} + \frac{y^2}{b} = 2z, \text{ where } a > b.$$

7. Investigate the conditions under which $\mathrm{M}dx + \mathrm{N}dy = 0$ can be made integrable by a factor μ, which is a homogeneous function of x and y of the degree 0.

8. Find the orthogonal trajectory of the circles

$$x^2 + y^2 - 2ky + \delta^2 = 0, \; k \text{ being the parameter.}$$

9. Integrate the differential equations:

$$(y - x)(1 + x^2)^{\frac{1}{2}}dy - n(1 + y^2)^{\frac{1}{2}}dx = 0;$$

$$y = x\frac{dy}{dx} + \sqrt{\left\{ b^2 - a^2\left(\frac{dy}{dx}\right)^2 \right\}}.$$

10. Integrate the partial differential equations:

$$xzp + yzq = xy;$$
$$(y + x)\,p + (y - x)\,q = z.$$

Pass—Second Year.

Mixed Mathematics.—*Examiner, Professor Curtis,* LL.D.

1. Determine in magnitude and position the resultant of two parallel forces of 5 lbs. and 7 lbs., situated at a perpendicular distance of one foot from each other; (*a*) when they are co-directional; (*b*) when they are in opposite directions.

2. Determine in magnitude the resultant of two forces of 3 lbs. and 7 lbs., whose directions intersect at an angle; (*a*) of 90°, (*b*) of 60°, (*c*) of 45°, (*d*) of 30°.

3. Prove that forces proportional to the sides of a closed polygon, and

Appendix, No. 2.

Sessional Examinations.

acting perpendicularly to these sides respectively, at their middle points will equilibrate.

4. Give a definition of a mechanical power; mention the principal ones, and illustrate your definition by each of the three simple levers.

5. What is meant by the *principle of work?* Apply it to determine the condition of equilibrium in the compound wheel and axle.

6. Explain what is meant when the number 32 is said to be the measure of g (gravity). In what sense is g put equal to 62·5, in solving hydrostatical problems for instance?

7. Prove that a body projected vertically upwards in vacuo will have equal velocities at the two epochs, at which it passes through any one point in its course, and that the time occupied in describing any part of its course in ascending is the same as in descending.

8. An isosceles triangle, whose base is 8 feet, and altitude 12 feet, is sunk in a liquid, whose specific gravity is ·9; calculate the pressure on one face of it:—(*a*) when its base lies in the surface of the liquid, and its vertex is 6 feet below it; (*b*) when its vertex is in the surface, and every point on the base at the depth of 6 feet.

9. Explain the principle by which generally the specific gravity of a mixture can be calculated, when the volumes, or weights, of every one of the constituents, and their several specific gravities are given. In what case is the principle not applicable?

10. Establish the formula connecting the conjugate foci of a spherical reflector. On what convention is the formula applicable to all possible cases?

11. Deduce the law of refraction on the material theory of light. What result of experiment contradicts the law of refraction thus obtained?

12. Explain why dispersion is produced by a prism, and why it is not sensible when an object is viewed through window glass.

EXPERIMENTAL PHYSICS.—*Examiner, Professor Curtis,* LL.D.

N.B.—Special credit will be awarded to answers to questions marked thus.*

1. Establish the formula for graduating a Hydrometer.

2. Two plates are placed vertically in a liquid; give the law regarding their relative motion produced by capillary action, according as the liquid wets both, neither, or only one of them.

3.* Establish these laws on physical principles.

4. Describe the formation of a jet of liquid. By what experiment has this been discovered?

5.* Describe the construction of Leslie's Differential Thermometer; show that, as usually graduated, it is only a thermoscope, and that the rise and fall of the liquid in it is a function of the temperature of *both* bulbs.

6. Define the following terms used in treating of the subject of Heat:—Conduction, Absorption, Radiation.

7. Distinguish between relative and absolute expansion of liquids, and explain how the coefficients of both are determined.

8. Describe the Monochord, and the several experiments made with it.

9. How may the law—that for a given string the length of a wave varies inversely as the square root of the tension, be verified by the aid of a tuning fork?

10.* Two ends of two long magnets are brought near to one another; determine the lines of force due to their action on a magnetic particle

placed near them, and the curves of equilibrium :—(*a*) when the ends are similar poles; (*b*) when the ends are dissimilar poles. *Appendix, No. 2.*

11.* Show that the free charge on a Leyden jar is proportional to the entire charge, and explain fully the principle of the bifilar torsion electrometer. Sessional Examinations.

12.* A number of galvanic cells, in all respects similar, being given, and a certain quantity of wire being used as the electrode, how would you proceed, by means of a Galvanometer, to determine the internal resistance of each cell, and that of the Galvanometer, in terms of the resistance of the wire?

MIXED MATHEMATICS.—*Examiner, Professor Curtis,* LL.D.

Junior Honor Class.

1. Prove that, if any number of forces situated in a plane be an equilibrium, the sum of their moments, taken with regard to any point in the plane, is zero.

2. If each element of the surface bounding a solid body be acted on by a normal force proportional to the area of the element, prove that the solid will be in equilibrium.

3. Determine the limiting positions of equilibrium of a heterogeneous rectilinear bar, one extremity of which rests against a rough parabola, while some point between its extremities rests against the focus of the parabola, considered as a rough point.

4. Find the centre of gravity :—(*a*) of a spherical triangle, each side of which is a quadrant; (*b*) of the portion of an elliptic area cut off by two semi-conjugate diameters; (*c*) of the parabolic area cut off by any diameter, and an ordinate to it.

5. If a heavy body be projected from a given point, and with a given velocity, prove that there are *generally* two directions of projection which will insure its passing through any assumed point, and find the locus of points for which these two directions coincide.

6. An imperfectly elastic body is projected with a given velocity, and in a given direction, from an assumed point on a given horizontal plane, every time it strikes against the plane it rebounds; prove that the successive altitudes to which it ascends are in geometrical progression, and find its entire horizontal range.

7. Determine the centre of pressure of a parallelogram, two of whose sides are horizontal, and each sunk to a known depth below the surface of a liquid in which it is immersed.

8. An equilateral triangle, whose side is l, and altitude h, is immersed in a liquid, one angle being in the surface, and one side being perpendicular to the line in which the plane of the triangle intersects the surface; prove that, if this side and the perpendicular let fall on it from the opposite angle be taken for axes, the co-ordinates of the centre of pressure are $\frac{l}{12}$, and $\frac{h}{3}$.

9. Investigate the positions of floating equilibrium of the portion of an elliptic cylinder cut off by two planes perpendicular, and one parallel, to the axes of the cylinder.

10. A curve whose equation is given, being placed before a concave, or convex mirror, how would you deduce the equation of its image?

11. Solve the analogous problem in the case of a thin lens.

12. Deduce the expression for the deviation produced by a prism of small angle, when the incident ray makes an acute angle with the side of the prism.

Appendix, No. 2.

Sessional Examinations.

Third Year's Engineering.

Applied Natural Philosophy.—*Examiner, Professor Curtis,* LL.D.

1. On what principle may the elongation produced by a strain be computed?

2. Deduce the expression, $U=\frac{KEL}{2}(at)^2$, by which may be found the work done, in cooling through a range of temperature t, by a uniform bar of length L, elasticity E, section K square inches, and whose coefficient of linear expansion is a: one end of the bar being supposed fixed.

3. Calculate the weight which 13 men will raise by means of a capstan from a depth of 180 fathoms in 40 minutes, the weight being attached to a cable weighing 1,125 lbs., and the number of units of work capable of being done by one man per minute, being 3,130.

4. Prove that a locomotive engine of 30 H.P. will draw a train weighing 90 tons gross, the resistance being 8 lbs. per ton, at the rate of 15·625 miles per hour.

5. Deduce an expression for the thickness of a brick wall of height h, every foot length of which is subjected to a pressure, P, applied at its summit, and along its inner edge, in order that it should stand:—

(*a*) If there be no buttress.

(*b*) If there be buttresses, each of thickness a, breadth b, height c, the distance between every consecutive pair of buttresses being d.

6. Deduce the equation of equilibrium of a screw, taking into account the friction on the thread.

7. How does the consideration of friction modify the equation of equilibrium in the capstan?

8. Find the least number of teeth and pins with which a cogged wheel will work a pin wheel, the two pitch circles having equal radii.

9. Explain the equations $\frac{8}{7}L+R=P$, $\frac{LAhnm}{33,000}=H.P.$, applicable to an engine in which the steam is used inexpansively.

10. Prove the formula, accumulated work $=\frac{wv^2}{2g}$ applicable to the case of a heavy body, moving with a velocity of translation; how is this result to be modified in the case where the body has, in addition, a motion of rotation?

Third Year's Arts.

Mixed Mathematics.—*Examiner, Professor Curtis,* LL.D.

1. Find the centre of gravity of the eighth part of an ellipsoid, cut from the solid by three principal planes.

2. A plane area moves in such a manner as to be always perpendicular to a curve of double curvature, along which its centre of gravity moves; deduce an expression for the volume generated.

3. A weight P is attached to a point on the circumference of a rough circular ring, whose weight is W; show that the ring will hang on a horizontal rod, in a plane perpendicular to it, with any point of the ring in contact with the rod, if the coefficient of friction be not less than $\left\{\frac{P}{W^2+2PW}\right\}^{\frac{1}{2}}$.

4. If a uniform chain be fixed at two points, and any number of links be constrained to smooth horizontal bars; prove that the various loops of the chain, when in equilibrium, will be arcs of the same catenary.

5. If a uniform string, acted on by a central force, be in equilibrium in the form of a cardioid, whose cusp coincides with the centre of force, find how the force varies.

6. Apply the principle of virtual velocities to determine the position of equilibrium of a material point, acted on by certain forces, and restricted to a given smooth surface.

7. A triangle, where sides are portions of the same uniform wire, attracts a material point according to the law of nature; find the position of the point, so that it may be in equilibrium. What is the nature of the equilibrium?

8. A particle is acted on by a central force, and surrounded by a medium, whose resistance is proportional to the velocity of the particle; investigate the circumstances of the motion, the particle starting from rest.

9. Explain what is meant by a movable orbit, and describe the method by which Newton determined the angle between the upsides of *quam proxime* circular orbits. How is the force in any central orbit related to that in the movable orbit?

10. Given that a central force, F, is defined by the equation $F=\lambda r+\frac{\mu}{r^3}$, find the orbit.

11. An elliptic cylinder floats in equilibrium in a liquid with its axis vertical; investigate the condition of stability or instability.

12. Determine the surface of revolution round a vertical axis, such that, if it be filled with a liquid, and an aperture be opened at the extremity of the axis, the free surface of the liquid will descend with a uniform velocity. Construct this surface by the aid of a parabola.

First Year's Medicine.

Natural Philosophy.—*Examiner, Professor Curtis*, LL.D.

1. State whether equilibrium can exist between the three forces:—

(*a.*) 2 lbs., 3 lbs., 6 lbs. (*b.*) 3 lbs., 4 lbs., 5 lbs.
(*c.*) 3 lbs., 4 lbs., 6 lbs. (*d.*) 4 lbs., 4 lbs., 4 lbs.

and determine, so far as you can, the relative directions of the forces in each case in which equilibrium is possible.

2. Describe the principal mechanical powers, and deduce the expression for the mechanical advantage in any one or more.

3. Calculate the time in which a heavy body, starting from rest, will descend through 121 feet, also the velocity acquired in falling.

4. What causes limit the extent to which rarefaction may be produced by an *ordinary* air pump?

5. Explain the principal corrections, which must be applied to readings made on a Mercurial Barometer, and explain the difference, if any, in applying these corrections at the top of a mountain and in a mine.

6. How may it be proved that Light, Heat, and Sound are reflected according to the same law?

7. By what experiment may the radiating powers of different surfaces be compared?

Appendix, No. 2.

Sessional Examinations.

8. What is meant by conjugate foci:—
(*a.*) In the case of a plane reflector?
(*b.*) In the case of a spherical reflector?
Are the two strictly analogous?

9. Determine the Principal Focus of a spherical reflector; also the centre of a lens.

10. Explain the uses of the metallic coatings of a Leyden jar.

11. How may the two kinds of Magnetic Curves be exhibited?

12. By what arrangement may it be shown that the *direction* of the Voltaic current, arising from two metals being immersed in a liquid, depends on the liquid?

JURISPRUDENCE—*Examiner, Mr. Lupton*, M.A.

1. Compare and contrast the methods of investigation adopted by Mr. Austin and Mr. Maine as writers on jurisprudence.

2. "Laws being imposed either by each man upon himself, or by a public society upon the particulars thereof, or by all the nations of men upon every society, or by the Lord himself upon any or every one of these, there is not amongst these four kinds any one but containeth sundry both natural and positive laws."
Examine the different imports of the term law in this passage, and point out how far it is strictly capable of the above applications.

3. Distinguish between the several sciences of jurisprudence, legislation, and morals.

4. What are the essential features of an independent political society? Distinguish between an aristocracy and a monarchy.

5. Show that the sovereign power is incapable of legal limitation.

6. Point out the different stages in the spontaneous development of early law.

7. Under what class of ameliorative agencies does Mr. Maine rank *case law?* Explain carefully the way in which it operates.

8. Show how modern international law has been influenced by the theories of the Roman jurists of a *jus gentium* and a *jus naturale.*

9. How do you account for the old rule of English law prohibiting the succession of the *half-blood?*

10. Explain clearly and give examples of a *universitas juris.*

11. "L'individu meurt, mais la personne juridique est immortelle." Explain and point out the bearing of this principle on the law of wills.

12. Distinguish between *property* and *possession*, and show how the remedies appropriate to the latter have in Roman and English law become available for the protection of the former.

ROMAN LAW OF SUCCESSIONS AND OBLIGATIONS.—
Examiner, Mr. Lupton, M.A.

1. Distinguish between universal and single succession, and give examples of each from Roman and English law. To which class did Bonorum-possessio belong?

2. Explain the maxim "Totius testamenti caput et fundamentum heredis institutio." Distinguish between acquisition as heir, legatee, and under a fidei commissum.

3. Classify the Bonorum-possessiones; explain the nature of the rights which they confer, and the means by which these rights are protected.

4. What were the nature and effects of the "Quærela inofficiosi testamenti," and the "Quærela nullitatis?"

5. What are the respective rights of the parties in the following cases:—

α. Sempronius in his will makes no mention of an unemancipated daughter, and institutes an *extraneus* heir.

β. Sempronius in his will makes no mention of an emancipated daughter, and institutes an *extraneus* heir.

6. Sempronius dies intestate, leaving a daughter *in potestate*, an emancipated son, and a mother. In what order is each of these persons entitled to claim, and what share can each claim?

7. *α.* Sempronius dies intestate, leaving N, the son of a deceased brother B, and X, Y, Z, the children of a deceased half sister C.

β. The state of things is the same, except that B is still alive.

To whom, and in what proportions, and according to what rules of law, does the inheritance descend in each of these cases?

8. What was meant by *nudum pactum*, and what theory of contract does the expression imply?

9. Describe accurately the modes of formation, termination, and leading incidents of *mandatum*, *emptio—venditio* and *societas*.

10. Upon Monday Sempronius stipulates to sell a slave to Titius.

Upon Tuesday he agrees to sell it to Seius, and receives the price from him.

Upon Wednesday he gives the slave to Mævius.

Afterwards Stichus steals the slave from Mævius.

Who is *dominus*, and who *possessor*, and what remedies has each of the claimants against all or any of the others?

11. Enumerate and explain the different forms of obligation *ex delicto*.

12. What is the accountability in each of the following cases of the holder to the owner:—

α. Of Sempronius for a watch given him in pledge and stolen from his person in the street.

β. Of Titius for a yacht lent him by a friend and capsized at sea, while he was navigating it.

γ. Of Seius for a £10 note lent him by a friend and accidentally burnt.

δ. Of Mævius for a horse lent by a friend and stolen from his stable?

POLITICAL ECONOMY.—*Examiner, Mr. Lupton*, M.A.

1. "A country never knows its own resources till it is ruined."

Explain this proposition, and account for the phenomenon implied.

2. Enumerate the advantages resulting from the "Division of Labour." Under what larger principle may the "Division of Labour" be ranked?

3. "Rent may be considered as the produce of those powers of nature, the use of which the landlord lends to the farmer."

"In manufactures nature does nothing—man does all."

Examine these positions, and show how far they are consistent with the true theory of rent.

4. State and discuss the Malthusian doctrine of population.

5. Distinguish between "value" and "cost," and show how they are related.

6. "The rate of profit depends upon the cost of labour."

Establish this proposition, and explain accurately the terms involved in it.

DUBLIN: Printed by ALEXANDER THOM, 87 & 88, Abbey-street,
For Her Majesty's Stationery Office.

Digitized with financial assistance from the
Government of Maharashtra
on 26 June, 2018